#### THE CLIFFS POWER & LIGHT CO.

#### SUMMARY OF OPERATIONS - 1935.

			KILOWA	TT HOURS GE	NERATED & P	URCHASED		7. (5	Used by			Transmission
	McClure	Carp	Hoist	Au Train	Republic	Escanaba	Purchased	TOTAL	Auxilia-	to Line	KWH. Sold	K.W.H. %
Jan.	2,080,000	1,482,500	614,000	254,730	116,300	200,000	0 1	4,747,530	11,196	4,736,334	4,084,855	651,479 13.75
Feb.	2 188 600	1 284 600	698 000	276 530	129 100	224 000	0	4 800 830	10 553	4 790 277	4 088 310	701 967 14.65
March	2 179 200	1 198 900	661 000	265 950	104 000	203 000	0	4 612 050	11 064	4 600 986	3 885 002	715 984 15.56
April	1 904 900	1 475 800	617 000	256 310	116 800	198 000	0	4 568 810	9 946	4 558 864	3 995 358	563 506 12.36
May	2 485 200	1 730 000	540 000	201 270	89 200	208 000	0	5 253 670	8 436	5 245 234	4 488 453	756 781 14.42
June	2 790 000	1 107 300	857 000	135 240	106 000	362 000	0	5 357 540	11 676	5 345 864	4 602 494	743 370 13.90
July	2 677 600	1 365 800	611 000	210 260	105 900	326 000	0	5 296 560	9 822	5 286 738	4 521 004	765 734 14.48
Aug.	3 023 300	800 300	927 000	443 920	97 000	222 000	0	5 513 520	12 125	5 501 395	4 711 758	789 637 14.35
Sept.	3 351 200	693 000	1 126 000	416 850	59 900	192 000	0 !	5 838 950	12 733	5 826 217	5 040 184	786 033 13.49
Oct.	3 281 800	742 700	1 075 000	316 630	51 100	239 000	0	5 706 230	12 941	5 693 289	4 903 852	789 437 13.86
Nov.	3 176 800	974 700	1 037 000	346 410	91 100	320 000	0	5 946 010	12 182	5 933 828	5 132 107	801 721 13.51
Dec.	2 505 300	1 502 500	826 000	392 650	83 900	268 000	0	5 578 350	12 936	5 565 414	4 788 305	777 109 13.96
TOTAL	31,643,900	14,358,100	9,589,000	3,516,750	1,150,300	2,962,000	0 6	3,220,050	135,610	63,084,440	54,241,682	8,842,758 14.01

Electrical Department: (Cont'd)

The following alternating current motors are installed and operating as needed:

	INSTALLED TO JAN. 1, 1935	INSTALLED IN 1935		JAN. 1,1936 TOTALS
NGELINE MINE:				
Hoist	250 HP.			250 HP.
LIFFS SHAFT MINE:				250 Hr
Shop	25			
No. 8 Crusher	125			
Screens	15			
Top Tram	100			
Hoist for "A" Shaft	750			7
Underground Plunger Pump #1	180			
" Centrifugal Pump	250			
Allis-Chalmers Compressor	175			
Hoist for "B" Shaft	750			
Underground Plunger Pump #2	200			
Laboratory Crusher	5			
Cooling Water Pump for Compressors	10			
Ingersoll-Rand Compressor #1	400			
" " #2	400			
Lower Tram #2	50			
Heating Plant Condensing Water Pump	5			
Underground Haulage Set #2	215			
Jaw Crusher - New Crushing Plant	75			
Magnetic Separator- " (Stored)	11/2	STATE OF THE STATE	11/2	
Underground Scrapers - 55 - 25 HP motors	1325	50	-2	
Lower Tram #3	30			
Battery Charging Set, 2nd Level "A" Shaft	71/2			
Grinder in Drill Sharpening Shop	7 2			
Rotary Screen (stored)	10		10	
Boiler Feed Pump at Central Office	3/4			
Undg. Haulage Set #1 (from Gen. Storehouse)				
Carpenter Shop	25			
Return Water Pump at Central Office	1			
Stoker " " "	3/4			
Rock Tram	50			
Laboratory Stoker	3/4			
Rock Picking Belt	5			
Machine Shop Stoker		1		
Bit grinders 3 - 2 HP.		6		
Small Hoist "A" Shaft		20		
bindii hoist a bidit				5,410
ROWNSTONE SUBSTATION:				0,1104
Test Set	1/2			
Oil Filter Press	1/4			
Battery Charging Motor-Generator Set	3			
Commutator Grinder	ĭ			
Synchronous Condenser	80			
M.G. Set on Voltage Regulator Control	1/4			
Large Oil Filter Press	2			
Drill	1			88
fwd.	5,6823 HP	77 HF	11½ H	P 5,7484 H

			TAKEN OUT IN 1935	CONNECTED JAN. 1,1936 TOTALS
	fwd 5,6823 HP	77 HP	11½ HP	5,7484 HF
HARD ORE SHOPS:				
Machine Shop	10	25	10	
Carpenter Shop	25			
Blacksmith Shop Punch	3 2			
Armature Banding Machine				
	1/2			
	1/8			
Lathe Grinder				
Portable Drill - small (Stanley)	1/4			
- 10180	1/4			
Commutator Slotter	1/8		101	
Air Compressor	102		102	
Water Supply Pump	2/4			
Blacksmith Shop Blower	1/4			
Hacksaw	10 <sup>1</sup> / <sub>2</sub> 7 <sup>1</sup> / <sub>2</sub> 1/4 1/2 1/4			
Small Grinder	1/4			
Portable Drill (Stanley)	1			
Carpenter Shop Saw	25 2			
Water Pump (S.R.Elliott)	15			
Motor-Generator Set	60			
Air Compressor	1/4			
Hard Ore Office Stoker	30			
Portable Welder - Blacksmith Shop	20			
Band saw		5		
Crane		5		•••
COUNTY TO THE STORAGE				229
ISHPEMING HOSPITAL:	71/2			
Passenger Elevator Dumb Waiter	3			
Large Washer	2			
Small "				
Extractor	3 2 1 2			
Vacuum Cleaner	3			
Water Supply Pump	1			
XRay Machine	1/4			
Hot Water Circulating Pump	1/2			
" Return - high pressure	5			
" " - low "	5 1½			
Vacuum Pump	3			293
FILDEN MINE:				274
Compressor	150			
Centrifugal Pump	275			
Scraper on Coal Dock	15			
#29 Shovel - Motor-Generator Set	110			
" - Air Compressor	41/2			
" " - Oil Pump	1/4			
" " - Trip Motor	2			
" - Exciter Motor	10			
_ MAC1001 MO 001				W

## ANNUAL REPORT YEAR 1935

Electrical Department: (Cont'd)				
	INSTALLED			CONNECTED
		INSTALLED		JAN. 1, 1936
	1935	IN 1935	IN 1935	TOTALS
brt. fwd.	5,927 HP.	112 HP	32	6,007 HP
TILDEN MINE:	5662			
Cyclone Drill	10			
" Drills - 4 - 15 HP	60			
[4] C. B. C. B. C.	1 - 1 - 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 -			
Car Dumper	30			
Large Crusher	250			
Car Puller	10			
Sample Crusher	3			
Belt Conveyor	50			
Secondary Crushers 2 - 100 HP	200			
Small Hoist over Crusher	3			
[17] T. P. D. M. S. M. B. M.				
#31 Shovel - Motor Generator Set	110			
" - Exciter Motor	7½ 1¼ 5¾ 15			
" " - Trip "	14	No. of Section 1		
" - Air Compressor	53			
Drill Sharpener	15			
Pump for Drills	15	10	5	
Synchronous Condenser from P.C.P. Plant	625			
Shop Motor	5			
" #2	3	50	50	
Scraper		50	50	
Armstrong Drill (returned from Maas Mine)	15			
Blower Fan	1/2			
Fan in Crusher Bldg.	1/2			
Centrifugal Pump in Compressor Pit	2			
Booster Pump	125			
	140	=0		
Pump for Summit Pit		50		
Emery Wheel		1/4		
				2,1682
ATHENS MINE:				
Cage Hoist	400			
Nordberg Compressor	325			
Compressor Cooling Water Pump	3			
	5			
Auxiliary Compressor for Hoist Brakes				
Underground Ventilating Fan #1	15			
Skip Hoist Set	850			
" " " Oil Pump	1			
Shop	10			
Underground Haulage Converter	150			
Skip Pit Pump	2			
	800			
Underground Plunger Pumps - 2 - 400 HP				
Ore Tram 2 - 50 HP	100			
Carpenter Shop	20			
Ore Crusher	25			
Underground Ventilating Fan #2	50			
Ingersoll-Rand Compressor	450			
Rock Tram	50			
Underground Haulage Converter #2	150			
	1/4			
Saw Gumming Machine				
Nordberg Compressor Oil Pump	1/2	0.00		
Breitung Pump		25		# A# 3
	The state of the			3,4313
fwd.	11,447 HP	2471 HP	87	11,607

YEAR	1935		
Electrical Department: (Cont'd)			
	INSTALLED TO JAN. 1 1935	, INSTALLED TAKEN OUT IN 1935 IN 1935	
brt. fwd.	11,447 H		11,6071 HP.
MAAS MINE:			7
(Circulating Pump	40		
Turbine Auxiliaries (Injection "	25		
(Exciter	35		
Underground Haulage Set	215		
Shop	10		
3rd level Centrifugal Pump	350		
Trunger routh 11.	500		
Ore Tram 2 - 50 HP. motors	100		
Coal Crushing Plant 3rd level Plunger Pump #2	15 250		
Ingersoll-Rand Compressors - 2 - 400 H.P.	800		
Skip Hoist	700		
Cage "	400		
Skip Hoist Rheostat Pump	3		
Carpenter Shop Saw	15		
Auxiliary Compressor for Hoist Brakes	71/2		
Cooling Water Pump	5		
Saw Gumming Outfit in Carpenter Shop	2		
Underground Haulage Set #2 (from Neg.Mine)	215		
5th level Aldrich Pump ( " Boeing Mine	100		
3rd " Centri. "	400		
" " - primer	50		
5th " Prescott Plunger Pump (from Lake in " Centrifugal " ( " Prince			
dentificat ( Filme	56011 125		4,4352
EGAUNEE MINE:			
Underground Haulage Set #1	300		
"Ilgner" Hoist Set	450		
ore Tram 2 - 50 H.P.	100		
Carpenter Shop in Lab. Bldg. (from Athens)	5		
Auxiliary Compressor for Hoist Brakes	3		
10th level Plunger Pumps - 2 - 300 HP.	600 350		
oditili ugar i umb	30		
" Suction Pumps 2 - 15 HP. Compressor Cooling Water Pump	3		
[17] N. M. M. H. B. M.	325		
Nordberg Air Compressor Shop	15		
Ore Crusher	25		
Ingersoll-Rand Compressor	400		
13th level Plunger Pump	15		
11th " " Pumps 2 - 75 HP.	150		
Exciters for 10th level Pump Motors (2)	40		
Signal System Motor-Generator Set	1/2		
Timber Hoist - #2 Shaft	25		
Ventilating Fan " "	150		
Gravel Hoist	15		
Saw in Carpenter Shop	15		
Skip Pit Pump	5		
Underground Haulage Set #2	220		
Pump - Temporary	· 特别的 克勒二州公司	35	

15,8822

fwd.

2474

16,0423

87

Pump - Temporary

# ANNUAL REPORT YEAR 1935

Electrical Department:	(Cont 'd)
------------------------	-----------

brt. fwd. 15,882 HP 247 HP 87 16.  NEGAUNEE MINE: brt. fwd. 3,241 35  New Flywheel Set for Hoists 800  011 Pump on #2 Flywheel Set 1  """" " Nordberg Compressor 1  Hot Well Pump 2	OTALS ,0424 H
New Flywheel Set for Hoists  0il Pump on #2 Flywheel Set  """""""""""""""""""""""""""""""""""	
New Flywheel Set for Hoists  Oil Pump on #2 Flywheel Set  """""""""""""  Hot Well Pump  MAAS CRUSHING PLANT:  Jaw Crusher  Belt Conveyor  Fan Conveyor Motor-Generator Set  LLOYD MINE:  Skip Hoist (from Republic) 500  Cage " 400  Top Tram (changed to 50 HP - from Gwinn) 40 50  Ore Crusher  Water Supply Pump Installed Underground 50  Concrete mixer 5  Top Tram 50  Compressor 100  Underground Haulage Converter 120	
oil Pump on #2 Flywheel Set 1 " " " " Nordberg Compressor 1 Hot Well Pump 2  MAAS CRUSHING PLANT: Jaw Crusher 100 Belt Conveyor 50 Fan Conveyor Motor-Generator Set 50  LLOYD MINE: Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete Mixer 50 Compressor 100 Compressor 100 Underground Haulage Converter 120	
" " Nordberg Compressor 1  Hot Well Pump 2  MAAS CRUSHING PLANT:  Jaw Crusher 100 Belt Conveyor 50 Fan Conveyor Motor-Generator Set 50  LOYD MINE:  Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram 50 Compressor 100 Compressor 100 Underground Haulage Converter 120	
Hot Well Pump  AAS CHUSHING PLANT:  Jaw Crusher Belt Conveyor Fan Conveyor Motor-Generator Set  LLOYD MINE:  Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 Ore Crusher Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram Compressor 100 Compressor 100 Underground Haulage Converter 120	
Hot Well Pump  AAS CHUSHING PLANT:  Jaw Crusher Belt Conveyor Fan Conveyor Motor-Generator Set  LLOYD MINE: Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 40 Ore Crusher Water Supply Pump Installed Underground 50 Concrete Mixer 50 Top Tram 50 Compressor 100 Underground Haulage Converter 120	55.50
Jaw Crusher 100 Belt Conveyor 50 Pan Conveyor Motor-Generator Set 50  LLOYD MINE: Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinm) 40 50 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	
Jaw Crusher Belt Conveyor Fan Conveyor Motor-Generator Set  LOYD MINE: Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	,081½
Belt Conveyor 50  Pan Conveyor Motor-Generator Set 50  LLOYD MINE: Skip Hoist (from Republic) 500 Cage " 400  Top Tram (changed to 50 HP - from Gwinm) 40 50 40  Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	
Pan Conveyor Motor-Generator Set	
Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 40 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	
Skip Hoist (from Republic) 500 Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 40 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	200
Cage " 400 Top Tram (changed to 50 HP - from Gwinn) 40 50 40 Ore Crusher 25 Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	
Top Tram (changed to 50 HP - from Gwinn) 40 50 40  Ore Crusher 25  Water Supply Pump Installed Underground 50  Concrete Mixer 5  Top Tram 50  Compressor 100  " 225  Underground Haulage Converter 120	
Ore Crusher  Water Supply Pump Installed Underground  Concrete Mixer  Top Tram  Compressor  Underground Haulage Converter  50  Converted Mixer  50  Compressor  100  225	
Water Supply Pump Installed Underground 50 Concrete Mixer 5 Top Tram 50 Compressor 100 225 Underground Haulage Converter 120	
Concrete Mixer 5 Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	
Top Tram 50 Compressor 100 " 225 Underground Haulage Converter 120	
Compressor 100 225 Underground Haulage Converter 120	
Underground Haulage Converter 120	
Underground Haulage Converter 120	
Timber Yard Saw 7½	
Underground Haulage Converter (from Wade) 150	
Compressor Cooling Water Pump	1
MORRIS MINE:	,685 <del>2</del>
Ingersoll-Rand Compressor #2	
	500
SECTION 6 SHAFT:	
Hoist 200	
Water Pump in Change House	202
GWINN CRUSHING PLANT:	202
Crusher 85	
Pan Conveyor 50	
Belt " (from Mackinaw) 50	
Compressor 15	
" Cooling Water Pump3	907
FRANCIS MINE STOCKPILE:	203
Triplex Pump	<b>m1</b>
GARDNER MINE:	72
Hoist 400	
Top Tram 50	
Laboratory Crusher 3	
	453
fwd. 23,170 HP 3324 127 23	453

		INSTALLED TO JAN. 1, 1935	INSTALLED TAKEN OU IN 1935 IN 1935	
	brt. fwd.	23,170 HP		
MACKINAW MINE:				
Hoist		400		
Shop		71/2		
Ore Tram		50		
Underground Haulage	Set	150		
Air Compressor		325		
Compressor Cooling W	ater Pump	71/2		
4th level Quintuplex	Pump	350		
" " Triplex		75		
5th " Pump - Aut	omatic #1	30		
Winze Hoist		200		
4th level Centrifuga	1 Pump	400		
6th "	" Automatic #2	20		
Grinder in Shop		-	3	
OL STEEL HAMMEDIET GO				2,018
PRINCETON MINE #2		200		
Hoist			50	
Top Tram (stored)		50 25	50	
Stockpile Loader				225
PRINCETON MINE #3				
Hoist		75		
				75
PRINCETON CENTRAL POWER				
	(Circulating Pump	50		
Turbine Auxiliaries		40 33		
D. 12	(Exciter			
Boiler Room Fan		50		
Coal Handling Machin	ery	10		
		5_		188
PRINCETON CENTRAL SHOPS				100
Shop Motor		25		
Shop Motor				25
PRINCETON CENTRAL PUMP	STATION			
Centrifugal Pump	DIAI10M	100		
Automatic Pump		30		
Zutomzoic iump				130
ARP PLANT				
	- 15 HP pump motors	30		
Water Supply Pump		1		
Air Compressor		5_		
				36
HOIST PLANT				
Exciter Motor-Genera	tor Set	20		
Oil Pump		3		
Air Compressor		5		
Small Supply Hoist M	otor	3		
			<del></del>	31

Electrical I	Department:	(Cont'd)
--------------	-------------	----------

Electrical Department: (Cont'd)			
	INSTALLED		CONNECTED
	TO JAN. 1.	INSTALLED TAKE	
	1935	IN 1935 IN	
brt. fwd.	25,945 HP	3354 HP	177 26,103 HP
McClure Plant:			
Water Supply Pump	2		
Exciter Motor-Generator Set	172		
Air Compressor	5		
			241/2
ESCANABA PLANT:			7-2
Air Compressor	5		
Oil Pump	5		
Valve Operating Motor	1		
			21
TOTAL MINING DEPARTMENT			
and			
CLIFFS POWER & LIGHT CO.	25.980 HP	3354	177 26,138 HP
OBETTO TOWNER W BEGINE OUT	10,100g III	4	21. 13,100g III

Electrical Department (Cont'd)	INSTALLED TO JAN. 1, IN		TAKEN OUT IN 1935	CONNECTED JAN. 1,1936 TOTALS
TOTAL MINING DEPARTMENT	1300	4 1700	TA AVOC	TOTALIO
CLIFFS POWER & LIGHT CO. PIONEER FURNACE	25,980 <sup>1</sup> HP.	3354	177	26,138 <del>2</del> HP
Furnace & Sawmill	1,195			1 105
L. S. & I. RR. CO.				1,195
Shops, Sawmill, Ore Dock & Pumps	800			800
LAND DEPARTMENT Grand Island 3 motors	155		1	
LUMBERING DEPARTMENT (Dixon)				15½
Location Water Supply Pump	5			
Tie Mill Saw	75			
" " Conveyors	37			
" " Shop	10			127
MICHIGAN GAS & ELECTRIC CO.				
Ishpeming Munising	2,170 250			
Munising City Pumping	125			
mairsting orey ramping	Abit.			2,545
REPUBLIC TOWNSHIP				
Water Supply Pump	25			25
OLIVER IRON MINING CO.				45
Pumps at Angeline & Sec. 16 Mines Holmes Mine	525 2,552 <del>3</del>			
CITY OF ISHPEMING				3,0772
Booster Pump at Brownstone	15	Lat 1		
Air Compressor for Tank	10_			
CITY OF NEGAUNEE	435			25
THE CLIFFS ELECTRIC CO.) Now C.P.&L.Co. retail	100 Est.			435
DATING HINTER COLDANY				100
PALMER MINING COMPANY Volunteer Mine, Palmer	800			
				800
MUNISING WOODENWARE CO.	695			695
NORTH RANGE MINING CO.				
Blueberry Mine	1,165			
INLAND STEEL CO.				1,165
Greenwood Mine	450			
Morris Mine	3,360			
INLAND LIME & STONE CO.				3,810
Quarry & Dock	4.000			
MICHIGAN GOLD MINE	150			4,000
			1.74	150
ROPES GOLD MINE		350		750
TOTAL OUTSIDE LOAD	18,965 HP	350	0	350 19,315 H
GRAND TOTAL CONNECTED LOAD	44,945½ HP	6854	177	45,453 <sup>2</sup> H

Electrical Department: (Cont'd)
The following motors are not connected to our Power System:

	INSTALLED TO JAN. 1.	THE COURT THE MATERIA OTTO	CONNECTED
		INSTALLED TAKEN OUT	JAN. 1,1936
	1935	IN 1935 IN 1935	TOTALS
ESABA RANGE			
CANISTEO MINE;			
Priming Pump	3		
Shop	10		
Washing Plant Compressor	50		
Belt Conveyors 2 - 5 HP. motors		10	
Jaw Crusher	100	125	
Centrifugal Pump 1 - 125 " " Symons Crushers 2 - 100 " "	250 200	125	
H : [ ] : [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	75		
Belt Conveyor Dorr Washers 2 - 75 " "	150	150	
Dorr Washers 2 - 75 " " 2 - 30 " "	60	60	
	30	00	
Armstrong Drills 2 - 15 " " Centrifugal Pumps	25		
Portable Drill	1/2		
Hacksaw	1/2		
Wood Planer	3		
Band Saw	5		
Circular Saw	5		
Shaper	3		
Portable Drill	1/8		
Clear Water Pumps 2 - 3 HP motor			
Motor-Generator Set on Shovel No. 35	250	250	
Exciter Set " " " "	20	20	
Dipper Trip " " "	2	2	
Fan	3	3	
Heater Motors 5 - 1/2 HP motor			
11 11		1/4	
8 - 1/8 " "	1		
Bolt & Pipe Machine	5		
Machine Shop Planer	10		
Boring Machine	15		
Pressure Pump in Boiler House	30		
Shop Air Compressor	50		
Portable Grinder	1 s 2		
Bench Grinders 2 - 1/2 HP motor	s 2,4	1	
Blacksmith Shop Forge	1/4		
Electric Welder	15		
Punch & Shear Machine	7		
Small Pump	5 3 7 <sup>1</sup> / <sub>2</sub>		
Portable Saw Blacksmith Shop Bit Sharpener	10		
Roll Motor in Laboratory	10 5 1		
Pulverizer " "	1		
Fan " "	1/8		
Heater " "	1/8		
Fan " "	1/8		
Centrifugal Pump	125		
Motor-Generator Set - Washing Plant	225		
Battery Charger		3	
Allis-Chalmers Screen (stored)	5	5	
Electric Welder	15		
Priming Pump	3		
Armstrong Drill	15		
Ro-Tap in Laboratory	1/2		
Centrifugal Pump (from Holman)	125		
Washing Plant feed pump (stored at Caniste		20	
	3		
Battery Charger (old band saw motor)		278 371	1,8781 HP

CANISTEO MINE: (Cont'd) brt. fwd. 1,971 HP Portable Drill Layne & Bowler Pump from Holman Mine Door Classifiers - from Holman - 2-10 HP Motors Picking Belts - " " - 2-5 " "  Armstrong Drill - " " Hummer Screen - " " Shop Door Hoist - " " Shop Heater - " " Air Comp. in Lab " "  HOLMAN-CLIFFS MINE: Layne & Bowler Pump - to Canisteo	INSTALLED TAKEN OUT IN 1935 IN 1935	JAN. 1,1936. TOTALS
Door Classifiers - from Holman - 2-10 HP Motors Picking Belts - " " - 2-5 " "  Armstrong Drill - " "  Hummer Screen - " "  Portable Grinder - " "  Shop Door Hoist - " "  Shop Heater - " "  Air Comp. in Lab " "  HOLMAN-CLIFFS MINE:  Layne & Bowler Pump - to Canisteo	278 <sup>1</sup> / <sub>4</sub> 371 1/2	
Door Classifiers - from Holman - 2-10 HP Motors Picking Belts - " " - 2-5 " "  Armstrong Drill - " "  Hummer Screen - " "  Shop Door Hoist - " "  Shop Heater - " "  Air Comp. in Lab " "  HOLMAN-CLIFFS MINE:  Layne & Bowler Pump - to Canisteo	350	
Picking Belts - " " - 2-5 " "  Armstrong Drill - " "  Hummer Screen - " "  Shop Door Hoist - " "  Shop Heater - " "  Air Comp. in Lab " "  HOLMAN-CLIFFS MINE;  Layne & Bowler Pump - to Canisteo	20	
Armstrong Drill - " " " " " " " " " " " " " " " " " "	10	
Hummer Screen - " " " Shop Door Hoist - " " " Shop Door Hoist - " " " " " " " " " " " " " " " " " "	15	
Shop Door Hoist - " " " Air Comp. in Lab " " "    HOLMAN-CLIFFS MINE: Layne & Bowler Pump - to Canisteo	5	
Shop Door Hoist - " " Shop Heater - " " Air Comp. in Lab " " "    HOLMAN-CLIFFS MINE: Layne & Bowler Pump - to Canisteo	1	
Shop Heater - " " "  Air Comp. in Lab " "  HOLMAN-CLIFFS MINE:  Layne & Bowler Pump - to Canisteo	5	
HOLMAN-CLIFFS MINE:  Layne & Bowler Pump - to Canistee 350  Bench Grinder 75  Symons Crushers - 2 - 100 HP motors 200  Jaw Crusher 100  Dorr Classifiers - 2 - 10 HP motors-to Canistee 20  Air Compressor 50  Screen 25  Picking Belts - 2 - 5 " " " 10  Machine Shop 30  Exhaust Fan 1/2  Centrifugal Pump 275  Blacksmith Forge Fan - from Drew Mine 1/2  Motor-Generator Set 225  Clear Water Pump, Washing Plant 3  Armstrong Drill - to Canistee 15  Hummer Screen - " " 5  Bench Grinder 1/4  Portable Grinder " " 1/4	1/4	
HOLMAN-CLIFFS MINE:  Layne & Bowler Pump - to Canisteo 350  Bench Grinder 75  Symons Crushers - 2 - 100 HP motors 200  Jaw Crusher 100  Dorr Classifiers - 2 - 10 HP motors-to Canisteo 20  Air Compressor 50  Screen 25  Picking Belts - 2 - 5 " " " 10  Machine Shop 30  Exhaust Fan 1/2  Centrifugal Pump 275  Blacksmith Forge Fan - from Drew Mine 1/2  Motor-Generator Set 225  Clear Water Pump, Washing Plant 3  Armstrong Drill - to Canisteo 15  Hummer Screen - " " 5  Bench Grinder 1/4  Portable Grinder " " 1	11/2	
Layne & Bowler Pump - to Canisteo 1/4  Belt Conveyor 75  Symons Crushers - 2 - 100 HP motors 200  Jaw Crusher 100  Dorr Classifiers - 2 - 10 HP motors-to Canisteo 20  Air Compressor 50  Screen 25  Picking Belts - 2 - 5 " " " 10  Machine Shop 30  Exhaust Fan 1/2  Centrifugal Pump 275  Blacksmith Forge Fan - from Drew Mine 1/2  Motor-Generator Set 225  Clear Water Pump, Washing Plant 3  Armstrong Drill - to Canisteo 15  Hummer Screen - " " 5  Bench Grinder 1/4  Portable Grinder - " " 11		2,2863
Bench Grinder Belt Conveyor Symons Crushers - 2 - 100 HP motors Jaw Crusher Dorr Classifiers - 2 - 10 HP motors-to Canistee Air Compressor Screen Picking Belts - 2 - 5 " " " " 10 Machine Shop Exhaust Fan Centrifugal Pump Blacksmith Forge Fan - from Drew Mine Armstrong Drill - to Canistee Bench Grinder Portable Grinder - " " 1/4  1/4  1/4  1/4  1/4  1/4		
Belt Conveyor  Symons Crushers - 2 - 100 HP motors 200  Jaw Crusher 100  Dorr Classifiers - 2 - 10 HP motors-to Canistee 20  Air Compressor 50  Screen 25  Picking Belts - 2 - 5 " " " 10  Machine Shop 30  Exhaust Fan 1/2  Centrifugal Pump 275  Blacksmith Forge Fan - from Drew Mine 1/2  Motor-Generator Set 225  Clear Water Pump, Washing Plant 3  Armstrong Drill - to Canistee 15  Hummer Screen - " " 5  Bench Grinder 1/4  Portable Grinder - " " 1	350	
Symons Crushers - 2 - 100 HP motors 200  Jaw Crusher 100  Dorr Classifiers - 2 - 10 HP motors-to Canistee 20  Air Compressor 50  Screen 25  Picking Belts - 2 - 5 " " " 10  Machine Shop 30  Exhaust Fan 1/2  Centrifugal Pump 275  Blacksmith Forge Fan - from Drew Mine 1/2  Motor-Generator Set 225  Clear Water Pump, Washing Plant 3  Armstrong Drill - to Canistee 15  Hummer Screen - " " 5  Bench Grinder 1/4  Portable Grinder - " " 1		
Jaw Crusher  Dorr Classifiers - 2 - 10 HP motors-to Canistee 20 Air Compressor 50 Screen 25 Picking Belts - 2 - 5 " " " 10 Machine Shop 30 Exhaust Fan 1/2 Centrifugal Pump 275 Blacksmith Forge Fan - from Drew Mine 1/2 Motor-Generator Set 225 Clear Water Pump, Washing Plant 3 Armstrong Drill - to Canistee 15 Hummer Screen - " " 5 Bench Grinder 5/4 Portable Grinder - " " 11		
Dorr Classifiers - 2 - 10 HP motors-to Canistee 20 Air Compressor 50 Screen 25 Picking Belts - 2 - 5 " " " 10 Machine Shop 30 Exhaust Fan 1/2 Centrifugal Pump 275 Blacksmith Forge Fan - from Drew Mine 1/2 Motor-Generator Set 225 Clear Water Pump, Washing Plant 3 Armstrong Drill - to Canistee 15 Hummer Screen - " " 5 Bench Grinder 1/4 Portable Grinder - " " 1		
Air Compressor  Screen  Picking Belts - 2 - 5 " " " " 10  Machine Shop  Exhaust Fan  Centrifugal Pump  Blacksmith Forge Fan - from Drew Mine  1/2  Motor-Generator Set  Clear Water Pump, Washing Plant  Armstrong Drill - to Canistee  Hummer Screen - " " 5  Bench Grinder  Portable Grinder - " " 11		
Screen 25 Picking Belts - 2 - 5 " " " " 10 Machine Shop 30 Exhaust Fan 1/2 Centrifugal Pump 275 Blacksmith Forge Fan - from Drew Mine 1/2 Motor-Generator Set 225 Clear Water Pump, Washing Plant 3 Armstrong Drill - to Canistee 15 Hummer Screen - " " 5 Bench Grinder 1/4 Portable Grinder - " " 1	20	
Picking Belts - 2 - 5 " " " " 10  Machine Shop Exhaust Fan 1/2 Centrifugal Pump 275  Blacksmith Forge Fan - from Drew Mine 1/2 Motor-Generator Set 225 Clear Water Pump, Washing Plant 3 Armstrong Drill - to Canistee 15 Hummer Screen - " " 5 Bench Grinder 1/4 Portable Grinder - " " 1		
Machine Shop  Exhaust Fan  Centrifugal Pump  Blacksmith Forge Fan - from Drew Mine  Motor-Generator Set  Clear Water Pump, Washing Plant  Armstrong Drill - to Canistee  Hummer Screen - " " 5  Bench Grinder  Portable Grinder - " " 1		
Exhaust Fan  Centrifugal Pump  Blacksmith Forge Fan - from Drew Mine  Motor-Generator Set  Clear Water Pump, Washing Plant  Armstrong Drill - to Canistee  Hummer Screen - " " 5  Bench Grinder	10	
Centrifugal Pump  Blacksmith Forge Fan - from Drew Mine  Motor-Generator Set  Clear Water Pump, Washing Plant  Armstrong Drill - to Canistee  Hummer Screen - " " 5  Bench Grinder		
Blacksmith Forge Fan - from Drew Mine 1/2  Motor-Generator Set 225  Clear Water Pump, Washing Plant 3  Armstrong Drill - to Canistee 15  Hummer Screen - " " 5  Bench Grinder 1/4  Portable Grinder - " " 1		
Motor-Generator Set  Clear Water Pump, Washing Plant  Armstrong Drill - to Canisteo  Hummer Screen - " " 5  Bench Grinder " " 1/4  Portable Grinder - " " 1		
Clear Water Pump, Washing Plant Armstrong Drill - to Canisteo 15 Hummer Screen - " " 5 Bench Grinder 1/4 Portable Grinder - " " 1		
Armstrong Drill - to Canistee 15 Hummer Screen - " " 5 Bench Grinder 1/4 Portable Grinder - " " 1		
Hummer Screen - " " 5 Bench Grinder 1/4 Portable Grinder - " " 1		
Bench Grinder Portable Grinder - " " 1/4	15	
Portable Grinder - " " 1	5	
Roll Motor in Laboratory Pulverizer in " 10 - 1/8 " " 12	1,4	
Roll Motor in Laboratory Pulverizer in  1	1/4	
Pulverizer in "		
Compressor " - to Canisteo 12	11/2	
Hydrotator - stored 15	15	
" 20	20	
Centrifugal Pump at Pit " 125	125	

fwd.

3,525 HP 6862

9334

3,277

Electrical Department:	(Cont'd)
------------------------	----------

ectrical Department: (Cont'd)	INSTALLED			CONNECTED
	TO JAN. 1.	INSTALLED	TAKEN OUT	
	1935		IN 1935	TOTALS
brt. fwd.	3,525 HP		9334	3,2773
LL-TRUMBULL MINE:				
Log Washer	50			
n n	40			
Belt Conveyors 4 - 5 HP motors	20			
Crusher	100			
Sample Crusher	10			
Prescott Plunger Pump	125			
Centrifugal Pump	150			
Shops	30			
Punch & Shear Machine in Shop	5			
Band Saw in Carpenter Shop	5			
Compressor in Shop	50			
Screen	20			
Conveyor	100			
Planer in Shop	2			
Variety Saw in Shop	5			
Electric Drill	1/4			
Motor-Generator Set	65			
Blacksmith Shop Fan	1/4			
Drill	1/4			
Washing Plant Laboratory Rolls	3			
Picking Belt	5			
Car Puller	5 71/2			
Portable Grinder	i			
(1. 1987) N. P. B.	30			
North Pit Pump	25			
Air Compressor at Washing Plant	10			
Churn Drill				
Boiler Feed Pump	5			
Chip Screens	2			
Layne & Bowler Pump	125			
Tool Post Grinder	1/4			
Armstrong Drill (from Drew Mine)	15			
Rack Drives on Classifiers 2 - 10 HP motors				
Hummer Screen	2			
Pulverizer in Laboratory	1			
Fan " "	1/8			
Symons Crusher 2 -100 " "	200			
Bench Grinder	1/2			
Motor-Generator Set on Shovel #34	250			
Exciter " " "	20			
Dipper Trip " " "	2			
Fan " " "	3			
Fan for Blacksmith Shop	5			
Clear Water Pump	3			
Flue Machine	5			
Bench Grinder at Washing Plant	1/2			
Centrifugal Pump at Washing Plant		85		
				1.6032 HP
TOTAL MESABA RANGE MINES.	5,0431 HP	771출	933-	4,881- HP

1,398

TOTAL

Electrical Department: (Cont'd)			
	INSTALLED		CONNECTED
	TO JAN. 1.	INSTALLED TAKEN OUT	JAN. 1,1936.
	1935	IN 1935 IN 1935	TOTALS
SPIES-VIRGIL MINE:			
Underground Triplex Pump	50		
Crusher	50		
Air Compressor	403		
Compressor Cooling Water Pump	3		
Hoist	400		
Boiler Feed Pump	2		
Circular Saw in Carpenter Shop	25		
Shop	5		
Compressor Cooling Water Pump	3		
8th level Prescott Plunger Pumps 2 - 150 H	P 300		
Underground Haulage Converter	150		
Sump Pump	2		
Auxiliary Air Compressor for Hoist Brakes			

#### Electrical Department: (Cont'd)

The following A.C. motors are on hand, (Dec. 31, 1935) but are not installed:

LIFFS SHAFT MINE: Top Tram (sta	tor o	nly)				50 HP.	
Spare Top Tram						50	
Small Conveyor 1	Motor					2	
Scraper Motors			6 - 2	25 HP		150	
Crusher						25	
Scraper Motor						15	1534
Top Tram Motor :		nepublic				50	
Magnetic Separa	tor					3	
Screen						10	EE ***
ENERAL STOREHOUSE &	BA RN					•	55 H
Spare from Repul			mixer	(needs	repairs)	5	
" General E						50	
" from Hard			r pum	,		35	
" for centr:					ake	200	
" motor (nee						40	
Pump motor from	Repu	blic Mine	(need	ls repai	rs)	10	
2 - 500 HP. hois	st mo		Cliff	s Shaft	Mine	1,000	
Hoist stator on	ly		tt	"		500	
Feeder Belt			"	11		5	
Conveyor Belt		11	n		" 1 motor	20	
Concrete mixer	from .	Au Train				71/2	
Picking Belt						5	
Leach concrete i			***			10	
Pump from 11th 1		Republic "	Mine			71/2	
Carpenter Shop	rom	,,	"			20	
Undg. Hoist	**	Maas	**			50 50	
Cyclone Drill		Tilden	- 11			10	
Pump	. 11	Au Train	Dam			100	
11	**	Republic		(needs	remairs)	50	
	#	"	**			71/2	
Screen #9 Shaft	11		n	scrap		25	
Crusher						100	
Coal Tram	#	"	11			71/2	
Pump from 3rd le	evel	"	***			50	
Screen from crus	sher	11	11			10	
	from	n	**			35	
Top tram motor			19			50	
Pump from Mackin						20	
Spare for small					3)	5	
Pump motor from				house		2	
Prescott pump mo						325	
Tilden fan motor			r repa	1178)		1/4	
Pump motor from	Morr	is Mine				50	
	Di ont			. 14m ab.		40	
Gwinn Crushing 1 Sinking hoist fi			motor	(III SII	op for repairs	) 40 35	
Top tram	th the	tt tt				50	
-ob oresu	11	11 11				71	
Summ mum						3	
Sump pump Blacksmith Shop	THE					150	
Blacksmith Shop	Ian	11 11					
	Ian						
Blacksmith Shop Air compressor Hoist						125	
Blacksmith Shop Air compressor		11 11					

# ANNUAL REPORT YEAR 1935

Electrical Department: (Cont'd)	
GENERAL STOREHOUSE & BARN: (Cont'd) brt. f	
GENERAL STOREHOUSE & BARN: (Cont'd) brt. f Pump motor from Wade Mine	100
Undg. haulage set from Morris Mine	150
Cooling Water Pump " Wade "	2
Sump Pump from Negaunee Mine (needs repairs)	5
Allis-Chalmers 3K2164.1 from Armour Mine	5
Hoist " "	150
n n n n	250
Centrifugal Pump " "	150
11 11 11 11 11	200
n n n n	35
Blacksmith Shop Blower (C.S.Lab)	1/2
Centrifugal Pump	5
Skip Hoist Motor from Lloyd Mine	400
" " Barnes-Hecker Mine	400
Nordberg Compressor at Lake Mine Engine House	325
Compressor Motor	50
	5,605
ISHPEMING HOSPITAL:	
Spare for dumb waiter	3
" hot water return	5_
	8
ATHENS MINE:	
Pump Motor	50_
	50
MAAS MINE:	
Winze Pump	15
Pump (from Morris Mine)	50
Hoist motor from Stephenson Mine	75
Rheostat Pump	2 5 2
Cooling Water Pump	5
Netum	5
Sump Fump (new)	
ANTAGALINTALA LETATIA O DA IST	154
negaunee mine & Barn: Flywheel hoist set motor	350
Top tram	50
Hoist from South Jackson	75
Pump " Maas Mine	50
and a second sec	525
PRINCETON MINE:	
Underground Pump	150
	150
PRINCETON GENTRAL SHOPS & CENTRAL POWER PLANT:	
Hoist motor from Spies	200
Hoist motor	400
Ore Tram from Princeton Mine	50
	650
Top Tram from Gardner Mine	25
" " Stephenson mine	50_
	75
GWINN STORAGE SHED & STEPHENSON TRANSFER:	
Stephenson 5th level plunger pump	250
	250
" 8th " "	50
Spare for Primping Station	30_
	580_
fwd.	8,152 HP

					brt.	fwd.	8,1524	HP
TILDEN MINE:						FO		
Conveyor Belt						50		
Trip motor for sh	novels					14		
Scraper motor						50_	101-	
						TOTAL	8,2532	HP
Spare Motors at Spies-Virgi								
Underground haula	ige se	t				150		
Grinder motor						3		
Fan						15	300	-
						TOTAL	168	HP
pare motors on Mesaba Rang								
HILL-TRUMBULL MINE & S	HUPS:					25		
Log Washer			***			25		
Log Washer		Crosby				40		
Screen			"			20		
Picking Belt	"					3		
Chip Screen	11	"			4 - M	3		
Tables		The state of	. "		to Charlest			
No. 77	XIO.			Mining	00.	20		
#2 Turbo		"				20		
Feeder	"			(Loaned	to Buggalo			
North Pit Pump						30		
Planer			"			3		
Chip Screen						2		
Trammel Drive from	COLUMN TO THE REAL PROPERTY OF THE PARTY OF					30		
TENDO						10		
00114 93 01 201 0						15		
Feeder	, ,	- 11				10		
Air Compressor	, ,,	"				60		
Helmer Hoist						200		
							511	HP
CANISTEO MINE:								
Centrifugal Pump						600		
						600		
Dipper trip						2		
H-T Table motor						20		
H-T Picking Belt						5		
Belt Conveyors -		ors				10		
Spare Centrifugal						20		
Spare Heaters on	#35 S	novel				1/8	1 058	
HOTMAN OF THIS WENT							1,257	HP
HOLMAN-CLIFFS MINE:						150		
Shaft Pump	ent.					150		
Motor-generator S	966							
Sump Pump	n w1	ton Man				5 85		
Pump Loaned to Ch	aries	COH MINE	9 00.			2		
Priming Pump	nom De	ntion I	inc					
Air Compressor fr	Om Po	nciae M	rue			100_	400	117
						MOMAT	2 250	200
						TOTAL	2,260	H

Total	C.C.I		0.P.6	L.Co.	load "	con	mected.	to			om - 12/31, - " CONNECTED	5.0	26,138 <del>2</del> 19,315 45,453 <del>2</del>	
Total		cted lo					Mines Mine	-	Dec.	31st,	1935		4,8814 1.398	"
		motors							Ishne	emine l	District		8,253	**
11	m .	n	#			11	"				il Mine		168	11
#		. 11	11	Ħ		"			-		ge Mines		2,260	11

#### Electrical Department; (Cont'd)

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

	operating as needed:		INSTALLED	INSMALTED	MAIZER OTTM	JAN. 1,1936
			1935		IN 1935	TOTALS
	AU TRAIN WATER POWER PLANT:					
	Exciters	(2)	34 KW			
						34 KW.
	CARP RIVER WATER POWER PLANT:	/01	150			
	Exciters	(2)	150			150
	HOIST PLANT:					
	Exciter		172			
			37			
						542
	McCLURE PLANT: Exciters	(0)	110			
	M. G. Exciter	(2)	12			
	m. G. Bactor					122
	ESCANABA PLANT:					
	Exciter		28			
						28
	REPUBLIC PLANT:		10			
	Exciter		18 15			
						33
	MAAS PLANT:					
	Motor driven exciter		22½ 22½			
	Turbo " "	191	22 <del>2</del> 20			
	Compressor motor exciters	(2)				65
	PRINCETON CENTRAL POWER PLANT:					
	Motor driven exciter		222			
	Turbo " "		222			
	GLIFFS SHAFT MINE:					45
	Compressor motor exciters	(2)				
						20
	BROWNSTONE SUBSTATION & SHOPS:					
	Battery charging set		2			
	Line testing set Voltage regulator control		1/2			
	Condenser exciter		15			
ı	M. G. set in shop		10			
ļ	Welding generator		20			
	" "		22			
	AMILIANO RETRICA					70
	ATHENS MINE: Nordberg Compressor motor	eveiter	10			
1	Flywheel set exciter	0201001	15			
1	Skip hoist generator		700			
۱	Ingersoll-Rand compressor	motor exciter				
1	MAAC OFFICIATION TO ASSESS					735
1	MAAS CRUSHING PLANT: Pan conveyor generator		75			
I		iter	35 1 <sup>3</sup> / <sub>4</sub>			
						363
		fwd.	1,393	0	0	1,3931
0	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT					Transfer Start 4: 1 Section 2.

Electrical De			ont·a)					TAKEN OUT IN 1935	JAN. 1, 1936 TOTALS
				brt. fv	vd.	1,393 <sup>1</sup> / <sub>4</sub> KW			1,3934 KW.
NEGAUNEE MINI	E:								
Skip ho	ist gene	rator				400			
Cage '	11	**				150			
Flywheel						25			
Exciters						28			
Ingersol	1-Rand	compre	ssor mo	tor exc	citer	10			
Nordberg		**		17	"	10			
Bell, sig	mal set					1/2			
Skip hoi	ist gene	erator	#2			400			
Cage '		11	n			200			
Exciter	on new	hoist	set			35			1,2581
MADDIC MINE									1,2002
MORRIS MINE: Ingersol	1-Rand	compre	ssor mo	tor exc	eiter		10		
			100						10
LLOYD MINE:					- DE				
Compress	sor moto	r exci	ter			6_			
A CONTRACT MANAGEMENT									6
MACKINAW MINE						10			
Compress	sor moto	or exci	ter		No. I	10_			10
TILDEN MINE:									10
Thrust g	menerato	or on e	lectric	shovel	#29	15			
Hoist	11		. 11	- 11	11	75			
Swing	11	11	#	. #	11	15			
Exciter	17		11	#	10				
"		- 11	**		#31	5½ 5½			
Thrust	11			. 11	""	15			
Hoist	#		11	11	11	75			
Swing		**	11	**	11	16			
Exciter	for syr	chrono	us moto	r		15			
									237
				MAMAT		2 004 8	20		• 0143
			The same	TOTAL		2,904 <sup>3</sup> / <sub>4</sub> KW.	. 10	0	2,914 <sup>3</sup> / <sub>4</sub> KW

Underground Haulage Gener	rators:			
			STALLED TAKEN OUT N 1935 IN 1935	JAN. 1,1936 TOTALS
CLIFFS SHAFT MINE:				
Motor-Generator Set #2		100 KW		
" " charging " set #1	set			
" Set #1				205 KW
ATHENS MINE:				
Rotary Converter #1		100		
# #2		100		200
MAAS MINE:				
Motor-generator set #1		100		
" " #2		100		
TRAINING WITH				200
NEGAUNEE MINE: Motor-generator set #1	newl	200		
" " #2	12011	150		
				350
LLOYD MINE:				
Converter #1	. 103m. \	90		
" #2 (from Wad	e Mine)	100		190
MACKINAW MINE:				
Rotary Converter		100		
				100
	TOTAL	1,245 KW	0 0	1,245 KW
Direct Current Motors:				
AU TRAIN WATER POWER PLANT:	(0)	2/4		
Governor control motors	(2)	1/4		1/4
CARP RIVER WATER POWER PLANT:				-/-
Rheostat Control	(2)	1/4		
Governor "	(2)	1/4		
MAGISTON OF AND				1/2
MCCLURE PLANT: Valve control	(2)	2		
Rheostat "	(2) (2)	1/2		
				21/2
CLIFFS SHAFT MINE:				
Portable Hoist Car Puller		10 6 <del>1</del>		
Scrapers		180	_ 15	
				1812
TILDEN MINE:		***		
Hoist motor on electric s	shovel #29	100		
Thrust " " "	11 11	20		
Swing " " "	" #31	20		
Thrust " " "		20		
Hoist " " "	H H	100		
	<b></b>	1708	0 15	280
	fwd.	4794	0 10	4044

## ANNUAL REPORT YEAR 1935

Electrical Department: (Cont'd)

Electrical Department:	(Cont	(d)			4444				
						INSTALLED	THOMATTHE	MA TERM ATTE	TAN 1 1076
						TO JAN. 1,		IN 1935	JAN. 1,1936 TOTALS
			brt		fwd.	4793 HP	0	15	4644 HP
ATHENS MINE:									
Skip Hoist						900			
Ventilating fans		5 -	. 5	HP	motors	35		5	
Sullivan scrapers	100	2 -	62	- 18		13			
"	1	5 -	15	"	"	210	15		
Ventilating fan			CONT.			15			
Sullivan scrapers			20	"		40			
I. R. "		2 9	10	"	H	20			1,248
WALC HOTE									1,243
MAAS MINE: Timber hoist - 4th	lowel					10			
Ventilating fan	Tevel					10 15			
Sullivan scrapers	1000	9 -	15	UD	motors	225	60		
n n			61		#	321	00		
Scraper Slide					Mine	15		15	
Ventilating fans					motors	35	15		
Scrapers			25	**		50			
I-R. Scrapers		9 -	15	11	"	135			
" "		3 -	10			30			
Scrapers		1 -		11	"	20			
Fan		-	3	"	"	3			1
AAAA ADWAGII TAAA DI AANA	5.1.79		A la						6302
MAAS CRUSHING PLANT: Pan conveyor	5					40_			
ran conveyor									40
NEGAUNEE MINE:									
Skip Hoist			413			500			
Cage "						200			
Timber hoist -	11th :					10			
	12th	. "	60.795			10		1	
Scrapers			- 1		motors	222		672	
Sullivan scrapers		2 -	French L	11		13 50		52	
	100	2 -	1000	"	2	20			
Ventilating fans Denver scrapers			10	**	"	30			
Sullivan "			15	340		105			
Ingersoll-Rand Scr		5 -	0.020230	**		75			
11 11		6 -		**		60			
Sullivan		1 -	20	11			20		
Gardner-Denver	11	2 -	15	"			30		
									1,026
LLOYD MINE:									
Scrapers		7 -	15	"		120		15	
		1 -	10	"		30		20	
		3 -	25	. 11	"	75			
Skip Pit		1 -	6	"	,	62	m1		
	Simple		7				7 2		204
GARDNER-MACKINAW MINE:									204
Scraper		3 -	10	11	"		30		
,			20	10			20		
· ·			15	11	"		15		
					The same			1 2 2 2 2 2	3,673 <sup>1</sup> / <sub>4</sub>
	10 00	TOT	AT. T	0.0	MOTORS	3,6501	212	1892	3 6731

Spare Generators and Exciters on hand Dec. 31st, 1935: NEGAUNEE MINE:

Skip hoist

(armature only)

500 HP.

Snare	Underground	Haulage	Generators	on	hand	Dec.	31st.	1935.	

GENERAL STOREHOUSE:	et (from Morris)		100
Exciter - Nordberg			10
		TOTAL	110 K.W.
Spare Direct Current Motors	on hand Dec. 31st, 193	5:	
CLIFFS SHAFT MINE:			
	or 3 - 15 H.P. moto	rs	45 HP
ATHENS MINE:			15 HP
Timber hoist motor	r		10
Fan			15
			25
MAAS MINE:			
Conway Loader			50
			50
LLOYD MINE:			
Crane motor Ore Loader			10
Scrapers	1 - 15 HP motor		2 15
n	2 - 72 " "		15
	2 - 12		42
GENERAL STOREHOUSE:			
Pump motor			20
Spare hoist motor	for Shovel		105
" swing "			_20
GARDNER-MACKINAW MINE:			145
Hoist			15
			15
		TOTAL	292 HP
Maria alway			
MESABA RANGE:			
Exciters and Generate	ors installed up to Dec	. 31st, 1935:	
CANISTEO MINE:			
	tor on shovel - 2 sho	vels	300 KW
Swing "	" - 2	11	80
Thrust "		li de la companya de	78
Washing plant	t generator		150
Arc welder			10
Exciter on si	[20] [10] [10] [10] [10] [10] [10] [10] [1	"	24
reg weiter	(from Hill-Trumbul	1)	10 652 KW
HILL-TRUMBULL MIN	E.e		652 KW
	tor on shovel		150
Swing "	n n		40
Thrust "			39
Exciter	" "		12
HOLIVAN OF THE			241
HOLMAN-CLIFFS MINI Generator for			
denerator 101	r 19909 <i>r</i>		150
		TOTAL	1,043
		TOTAL	1,040

#### Electrical Department: (Cont'd)

#### MESABA RANGE:

Underground Haulage Generators installed up to Dec. 31st, 1935:

Motor-generator set " " for rock haulage	55 KW
	25
TOTAL	80 KW
irect Current Motors installed up to Dec. 31st, 1935:	
CANISTEO MINE:	
Rack drives on classifiers 4 - 5 HP motors	20 HP
Hoist motor on shovel 2 shovels	375
Swing " " 2 "	80
Thrust " " 2 "	80
Pan conveyor	40
Log Washers - from Holman 3 - 40 HP motors	120
	715 H
HILL-TRUMBULL MINE:	
Feeder motor	60
Hoist motor on shovel	1872
Swing " " "	40
Thrust " " "	39
Dorr bowl classifiers 2 - 5 HP motors	10
	3362
HOLMAN-CLIFFS MINE:	
Pan conveyor	40
	40
TOTAL	1.0912
pare Direct Current Motors on Mesaba Range Dec. 31st, 1938	);
CANISTEO MINE:	
	7 KW
CANISTEO MINE: Generator (from Pontiac Mine)	7 KW
CANISTEO MINE: Generator (from Pontiac Mine) HOLMAN-CLIFFS MINE:	7 kW 7 km
CANISTEO MINE: Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE: 1 D.C. motor	7 kW 7 k
CANISTEO MINE: Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE: 1 D.C. motor 1 " "	7 KW 7 KM 5 HP 3
CANISTEO MINE; Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE; 1 D.C. motor 1 " " 1 " "	7 KW 7 KM 5 HP 3 3 3
CANISTEO MINE: Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE: 1 D.C. motor 1 " "	7 kW 7 k
CANISTEO MINE; Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE; 1 D.C. motor 1 " " 1 " " Motor-generator set - spare from Boeing Mine	7 KW 7 K
CANISTEO MINE; Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE; 1 D.C. motor 1 " " 1 " " Motor-generator set - spare from Boeing Mine  ESABA RANGE:	7 KW 7 KM 5 HP 3 3
CANISTEO MINE; Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE; 1 D.C. motor 1 " " 1 " " Motor-generator set - spare from Boeing Mine	7 KW 7 KM 5 HP 3 3 3 115 KW
CANISTEO MINE; Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE; 1 D.C. motor 1 " " 1 " " Motor-generator set - spare from Boeing Mine  ESABA RANGE:	7 KW 7 KM 5 HP 3 3115 KW
CANISTEO MINE: Generator (from Pontiac Mine)  HOLMAN-CLIFFS MINE: 1 D.C. motor 1 " " 1 " " Motor-generator set - spare from Boeing Mine  ESABA RANGE:  Total Exciters and Generators installed to Dec. 31st,	7 KW 7 KM 5 HP 3 3 3 115 KW

#### Electrical Department: (Cont'd)

#### SPIES-VIRGIL MINE:

Exciters installed to December 31st, 1935:

Compressor motor exciter		10 KW
Underground Haulage Generators	installed to December 31st, 1935:	150 KW
Top tram larry cars	- 20 HP D.C. motors 40 15	FF

#### ISHPEMING DISTRICT:

Total	D.C. Generators and Exciters installed	l to	December	31st,	1935-	2,9142	KW
H	Underground Haulage Generators "	**		u	H _	1,245	KW.
n	Direct Current Motors "	"		n	" -	3,6734	HP
n	Spare D. C. Generators and Exciters on	han	id "	**	"-	0	
n	" Underground Haulage Generators "				" -	110	KW
**	" Direct Current Motors	, ,,		11	" _	292	HP

Electrical Department: (Cont'd)

Substation Transformers installed up to December 31st, 1935:

66,000/2300 Volts				K.V.A.	TOTAL K.V.	Ac	per t
Munising Substation		1	3	667	2,001		
Seney "		1	1	25	25		
Inland #1 "		1	3	500	1 500		
" #2 "		1	3	500	1 500		
33,000/66,000 Volts				2.5		5,026 K	.V.A.
Gwinn Substation		1	3	1,250	3,750		
		To the second				3,750	11
33,000/13,200 Volts							
Clarksburg Substation	on	. 1	3	37 <del>2</del>	1122	1121	11
3,000/110-220 Volts						1125	
Toebe Substation		1	1	10	10		
77 000 /0700 T-31-					To the state of th	10	
33,000/2300 Volts							
Brownstone Substati	1.50 (	1	3	400	1,200		
Cliffs Shaft-Holmes	Substation	1	6	500	3 000		
Morris-Lloyd		1	3	590	1 770		
Princeton		1	3	250	750		
Republic		1 1	3	400	1 200		
Maas	•	1	6	590	3 540		
Escanaba Plant		1	3	590	1 770		
Gwinn	•	1	3	625	1 875		
Munising			3	200	600		
McClure Plant	•	1 3 1	3 2 3	5,000	10 000		
Carp "		1	3	1 900	5 700		
Au Train "		3	1	1 250	1 250		
Palmer		i					
있으면 보호 Black (#1977년 #1977년 #1978년 #1976년 #1978년 #1977년 #1977년 #1977년 #1977년 #1977년 #1977년 #1977년 #1977년 #197			3	625	1 875		
Hoist Plant		1	3	667	2 000		
Greenwood	,	1	3	150	450		
Chatham		1	3	15	45		
Eben	11	1	1	25	25		
Camp Au Train		1	1	15	15		
6.600/2.300 Volts						37,065	
Gwinn Substation		1	3	350	1,050		
Mackinaw "		î	3	350	1 050		
Inland #1 "		i	3	25	75		
Blaney Park"		i	9				
bianey Fark		i	2	25 15	50 15		
				19		2,240	
6,600/115-230 Volts							
Germfask		1	1	15	15		
		1	2	1.5			
		1	2	3	6		
						24	"
12.000/2300 Volts				GRAND TOT	AL	48,2272	K.V.A.
McClure Plant (Furn	ace Lines)	3	2	1,250	2,500		K.V.A.
Transformers u	sed for Undergroun	d Haulage in	stall	ed to Dec	. 31. 1935		7
Athens Mine convert	ers	1	6	35	210		SUPPLY.
Mackinaw Mine conve	rter	1	3	35	105		
						315	K.V.A.

#### Electrical Department: (Cont'd)

Distribution Transformers installed up to December 31st, 1935:

00/220/110 Volts ANGELINE MINE:	Phase	No.		K.V.A.	TOTAL K.V.A
Hoist Control	1	1		71/2	
HOIST VOILVIOL					71
CLIFFS SHAFT MINE:					
Office Lights	1	1		10	
	1	1		15	
"A" Shaft hoists	1	2	(15)	30	
Pump station lights	1	1		3	
Crusher house lights	1	2	(1)	2	
Crushers & surface lights	1	3	(10)	30	
Underground scrapers	1	5			
	1	3	(25)	75	
	1	3	(75)		
Motor-generator set for battery ch	arging				
and 1st level "A" scrapers	1	2	(50)	100	
Rectifiers	1	7	(5)	35	
Lights	1	34	(1월)	51	
Scraper Lights	1	1		2	
Signal in engine house	1	1		5	
Scraper Lights	1	1		3	
Top tram control	1	1		1	
Laboratory	1	2	(15)	30	
					867
HARD ORE, BROWNSTONE, ETC.					
Light & power	1	1		15	
	1	1		72	
Blacksmith Shop	1	1		30	
Manager's residence	1	2	(10)	20	
	1	1		5 7½	
F. C. Stanford & testing	1	1		12	
		1		5 71 11	
Manager's residence	. 1	1		1	
Hamiltol	1	1	1951	12	
Hospital	1	3	(25) (15)	75 45	
Shop power " lights	i	1	(19)	5	
Blacksmith shop lights	i	i		15_	
Disorbinitin anop lights					239
TILDEN MINE:					200
Pump	1	1	(7월)	72	
"	ī	ī	(10)	10	
Lights & power	1	2	(5)	10	
n n n	1	2		2	
Drills	i	3	(15)	45	
Shovel	1	3	(5)	15	
Crusher	1	3	(10)	30	
Synchronous condenser	ī	2	(71)	15	
Scrapers	1	3	(15)	45	
#31 shovel	3	1	1-01	15	
Lights - Pump house	3	i		1/2	
Summit Pit Substation	1	3	(10)		
			1-01		225
					1,3382

## ANNUAL REPORT YEAR 1935

brt. fwd.	Phase	No	• .	K.V.E.	1,3382
ATHENS MINE:					1,0002
Machine Shop	1	2	(10)	20	
Surface Lights & Lab. hot plates	ī	3	(10)	30	
Pump station lights	1	1	1-01	5	
# # #	i	1		2	
100 G.P.M. pump	3	i		40	
Signal system	1	ī		1	
	î	î		5	
Engine house lights	i	1		4	
	i	i		2	
Top tram	1			1	
00110101		1	(m1.		
Pump at Breitung Shaft	1	3	(7월)	223	1321
MAAS MINE:					
Lights & injection pump	1	3	(10)	30	
Coal crusher & shop	1	2	(10)	20	
Signal system	1	1		1/2	
3rd level pump station	1	2	(5)	10	
Cage hoist control	1	1	'	10	
Skip " "	i	1		2	
# # #	î	i		3	
이 그 사람들은 살아 하는 것이 없는 것이 없다.	i	1		71/2	
Heaters in engine house					
Top tram	1	1		2	
Shop	1	1		15	100
MAAS CRUSHING PLANT:					
Lights	1	1		71/2	
DYATINED BING.					71/2
EGAUNEE MINE: Shop light and power		1		10	
nob right and bower	1	1			
Bandan & 24 Akan 2	1	1		72	
Engine house lights and power	1	1		10	
	1	1		5	
Signal system	1	1	1 ·	1/2	
Pump station lights, etc.	1	3	(7克)	$22\frac{1}{2}$	
13th level pump	1	3	(5)	15	
Barn	1	1		1,	
Gravel pit	1	1	1	72	
Hoist and lights - #2 Shaft	1	3	(10)	30	
Underground haulage	1	1			110
LLOYD MINE:					112
Cage hoist control	1	1		5	
Skip " "	1	1		5 7½	
Water supply pump house lights	1	1		2	
Engine house lights and bell system	ī	ī		10	
11 11 11	i	î		5	
Saw	i	1		5	
Underground haulage	3				
	1	1 3	1751	100	
" from Wade Mine	1	3	(35)	105	
					<u>2395</u>
				fwd.	1,930

Distribution Transformers	(Cont'd)	Phase	No.	K.V.A.	TOTAL K.V.A.
	brt. fwd.				1,930
NORTH LAKE LOCATION:					
Location Lights		1	1	72	
Club House "		1	1	_10_	17 <del>1</del>
SECTION 6 SHAFT:					115
Hoist control		1	1	71/2	
Lights		ī	2	(2) 4	
					111/2
REPUBLIC MINE:					
Engine house lights		1	1	7 <mark>급</mark> 1호	
Water Power Plant Lights		1	1	拉	
		1	1	_3_	
PALMER SUBSTATION:					12
Circuit breaker control		1	1	_ 1 <del>1</del>	
0110010 0100101 001101					11/2
AUSTIN MINE:					
Shop		1	1	10	
					10
GARDNER MINE:					
Cage hoist control		1	1	_10_	
MA OVERNA W. MTMB					10
MACKINAW MINE: Machine Shop		1	•	( = 1 10	
Hoist control		i	2	(5) 10	
Top tram		i	i	1	
7th level Engine House lig	hts	i	i	i	
Engine house heaters - 5th		î	ī	3	
					25
PRINCETON #2:					
Stockpile		1	2	(10) 20	
MDTMAN III					20
PRINCETON #3:		1	1	1½	
Lighting and bell system					1 <del>1</del> /2
PRINCETON CENTRAL POWER PLANT:					12
Coal Crusher		1	3	(71) 221	
Power plant lights		1	1	10	
					32 <del>2</del>
PRINCETON CENTRAL SHOPS:					
Power and Lights		1	2	(10) 20	
GWINN DISTRICT OFFICE:					20
Lights		1	1	_10_	
<b>11</b>					10
PRINCETON FUMP STATION:					
Power		1	3	(15) 45	
Lights		1	1	5_	
					50
GWINN DISTRICT CRUSHING PLANT:					
Power and Lights		1	2	(10) 20	
GWINN SUBSTATION:					20
GWINN DUDDIATION:				- 10	
Lights		The second secon			
Lights		1	1	1/2	1/2

Distribution	Transformers (Cont'd)	Phase	No.	K.V.A.	TOTAL K.V.A.
	brt. fwd.				2,172
AU TRAIN WATER PO	OWE Rs				
	welling lights	1	1	2	
Control		1	3	(1) 3	
Power and Li	ights, Dixon Location	1	1	5	
" "	" Grand Island	1	2	(5) 10	
Lights. Fore	st Lake Location	1	1	10	
	or's dwelling lights	1	1	5	
Surge tank h		1	2	(5) 10	
Dixon Tie Mi		1	3	(3) 9	
Power Saw		1	2	(5) 10	
Grand Island		1	1	71/2	
11 11		1	2	(5) 10	
Dixon Locati	on, power	1	1	3_	
					841
CARP RIVER WATER	POWER PLANT:				
Power and li		1	1	10	
" "		1	1	20	
Pump		1	2	(1) 2	
					32
HOIST PLANT:					
Power and Li	ghts	1	3	(10) 30	
					30
MCCLURE PLANT:			123		
	ghts in Plant	1	2	(10) 20	
" "	" " Houses	1	1	5	
	11 11 11	1	1	15	
BOOMERADA DINID DI	A 37/0				40
ESCANABA RIVER PL			77	( =1 1=	
Power and Li	gnts	1	3	(5) 15	
				GRAND TOTAL	2,373 <sup>1</sup> / <sub>2</sub>
RETAIL SERVICE:					
	cation Lighting	1	1	5	
Austin	.".	1	1	10	
Gwinn Street	######################################	1	2	(1) 2	
" "		1	1	2	
	ng near Depot	1	1	1/2	
	" Poplar Alley	1	1	30	
	- Club House	1	1	10	
	ng - Mineral St.	1	1	10	
n n	- Pine St.	1	2	(15) 30	
" Power	- School	1	3	(5) 15	
" Lighti		1	1	10	
New Swanzy L		1	1	10	
Cyr Location	" "	1	1	2	
Little Lake		1	1	2 5 7 <sup>1</sup> / <sub>2</sub>	
Sundell		1	1	72	
pundell		1	1	5	
,		1	2	(3) 6	
	" Rural	1	1	5 (3) 6 2½ (1½) 13½	
Rumely	nurai	1	9	(1호) 13호	
ii ii	i de la companya de l	1	1	5 2½	
e e	" Rural	1	9	11-1 17-1	
			2007/06/20	$(1\frac{1}{2})$ $13\frac{1}{2}$ $197$	
			I	Md. 197	

		YEAR 1935				
ectrical Department:	(Cont'd)		ml			momat If If A
	Transformers		Phase	NO.		TOTAL K.V.A.
RETAIL SERVICE		brt. fwd.	1		197	
Eben School			1	1	71/2	
COLITOR	(Hollstwom)		1	1	5	
" Lighting	(Hallstrom)	lano fa		i	5	
	(Ahola & Mic	KTOW )	1	4	(3) 12	
" "			i	12	(1½) 18	
Chatham "			i	1	10	
H H	(Heldmann's	Storel	i	î	5	
n	(County Gara		î	i	5	
		y Infirmary)	ī	1	10	
H		Chicken Coop)	ī	1	5	
	(State Farm)		1	2	(72) 15	
	(Maki)		1	1		
	(Camp Chatha	m)	1	1	5 5 3	
	(Rural)		1	1	3	
			1	15	$(1\frac{1}{2})$ $22\frac{1}{2}$	
			1	3	(1) 3	
				TO	TAL	343
Sugar Manage		Describer 71st 1	075			
Spare Transfo	rmers on nand	December 31st, 1	900:			
GENERAL STOREHOUSE	& BARN.					
	ric for 440 V	Shaft Pump	1	1	100	
11 11			ī	1	71/2	
			1	1	75	
			1	1	5	
er e			1	1	25	
17 11			1	1	3	
"			1	1	3	
			1	1	10	
"			1	1	25	
			1	1	7½ 5 7½ 5 2	
11 11			1	1	5	
11 11			1	1	72	
			1	1	5	
" "				1		
			1	1	5	
11 11			1	1		
			i	i	5	
New Westingho	use Elec. & M	fg. Co.	i		11	
# #	11		î	1	11	
			î	1 1 3	3 5 1 1 1 2 1 2 1	
New General E	lectric		ī	3	(15) 45	
" "	"		1	3	(10) 30	
" "	"		1	3	(5) 15	
" "			1	2	(3) 6	
						399
ATHENS MINE:						
Spare			1	1	3	
			1	1	3_	
REPUBLIC MINE:						6
General Elect	ric		1	1	4	
4040101 111000					_+_	4
GWINN SUBSTATION:						
Spare			1	1	10	
			ī	1	_10	
PRINCETON MINE ENG	INE HOUSE:				ALCOHOLD TO	20
Surface Light	ing		1	1	5_	
						5
					TOTAL	434

COMPARATIVE TABLES:

YEAR	TONS COAL BURNED	TONS ORE & ROCK HOISTED	CU. FT.	CUBIC FT. AIR PER TON HOISTED	GALLONS OF WATER PUMPED	G.P.M.
CLIFFS SHAFT	MINE:					
1926	1,470	350,604	801,351,000	2,285	379,727,700	
1927	957	426 830	766 647 000	1 796	440 517 425	
1928	1 008	416 344	804 600 000	1 932	463 182 750	
1929	934	451 334	853 572 500	1 891	461 403 025	
1930	716	444 511	896 693 000	2 017	446 650 100	
1931	560	315 492	592 506 000	1 878	350 061 000	
1932	611	92 125	188 127 000	2 042	369 057 075	
1933	495	61 623	160 033 500	2 596	362 896 379	
1934	373	235 639	394 168 500	1 672	348 670 324	
1935	869	288 053	516 140 000	1 791	366 504 523	692
ATHENS MINE:						
1926	869	226,229	547,650,000	2,421	140,788,044	
1927	790	233 221	679 815 000	2 914	127 086 869	
1928	827	241 977	710 640 000	2 936	120 178 303	
1929	767	344 534	1,154,380,000	3 350	117 645 969	
1930	657	384 801	1 060 650 000	2 756	121 785 145	
1931	621	254 660	686 750 000	2 696	136 215 501	
1932	578	77 639	209 925 000	2 703	205 070 447	
1933	546	49 506	152 235 000	3 075	194 073 179	
1934	672	166 412	334 485 000	2 009	179 244 454	
1935	653	205 863	527 355 000	2 561	154 911 562	292
MAAS MINE:						
1926	829	245,992	420,930,000	1,711	508,242,996	
1927	767	274 586	521 730 000	1 900	534 129 791	
1928	657	272 740	679 005 000	2 489	553 419 346	
1929	577	347 232	1,067,265,000	3 074	554 452 221	
1930	606	443 504	1 374 390 000	3 098	577 702 994	
1931	618	332 206	756 405 000	2 076	585 922 823	
1932	585	97 295	210 825 000	2 166	576 727 573	
1933	662	143 845	367 560 000	2 555	554 157 402	
1934	747	294 372	601 920 000	2 044	550 020 020	
1935	804	370 399	686 520 000	1 853	597 349 626	1,129
NEGAUNEE MINE	i.					
1925	1,100	342,824	660,600,000	1,927	436,422,253	
1926	1 229	374 004	602 010 000	1 609	440 271 619	
1927	1 139	501 516	895 680 000	1 785	603 746 976	
1928	1 278	472 458	1,047,240,000	2 216	629 675 383	
1929	1 410	569 489	1 123 840 000	1 973	648 591 436	
1930	1 254	597 364	1 044 270 000	1 748	556 227 893	
1931	885	346 533	620 641 000	1 791	482 294 599	
1932	1 092	86 650	209 970 000	2 423	477 360 416	
1933	708	65 661	166 050 000	2 528	448 928 213	
1934	819	240 808	437 985 000	1 818	435 724 897	

#### COMPARATIVE TABLES:

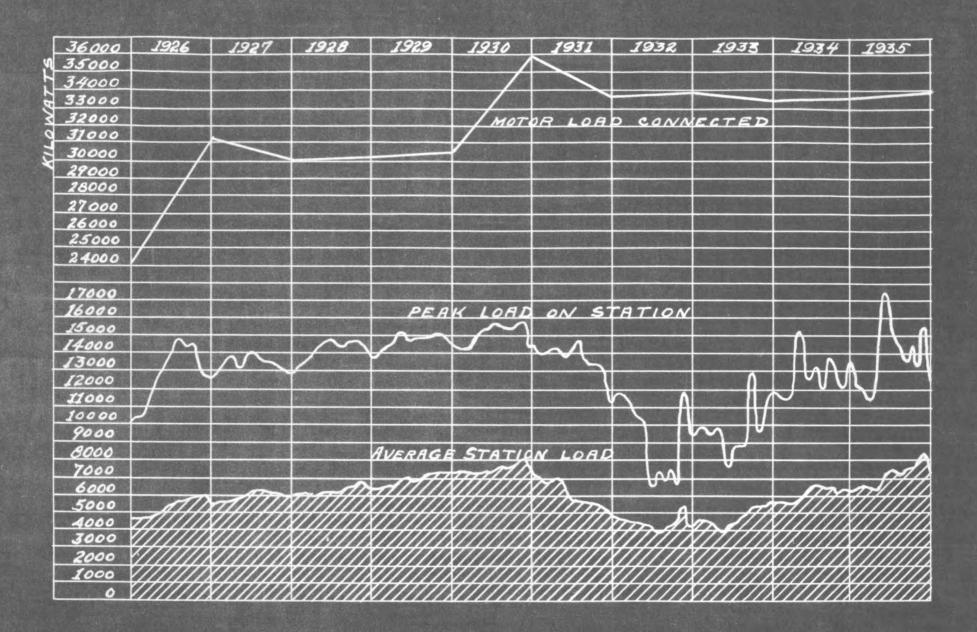
MATIVE TADE	DIO :			CUBIC		
	TONS	TONS ORE		FT. AIR	GALLONS	
	COAL	& ROCK	CU. FT.	PER TON	OF WATER	
YEAR	BURNED	HOISTED	AIR USED	HOISTED	PUMPED	G.P.M.
TILDEN MINE	1					
1929	625	441,769				
1930	498	287 043				
1931	244	137 010				
1932	38	19 957				
1933	164	94 194				
1934	325	167 688				
1935	394	190 511				
LLOYD MINE:						
1933	96	4,554				
1934	127	136 951	145,926,000	1,065		
1935	224	248 410	289 426 500	1 165		
GARDNER-MAC	KINAW 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	24 781	126 945 000	5 122	119 155 845	
1933	40	3 944	49 770 000	12 619	103 051 726	
1934	269	79 187	291 510 000	3 681	82 416 531	Auto Calle
1935	306	138 507	446 625 000	3 224	72 964 993	136

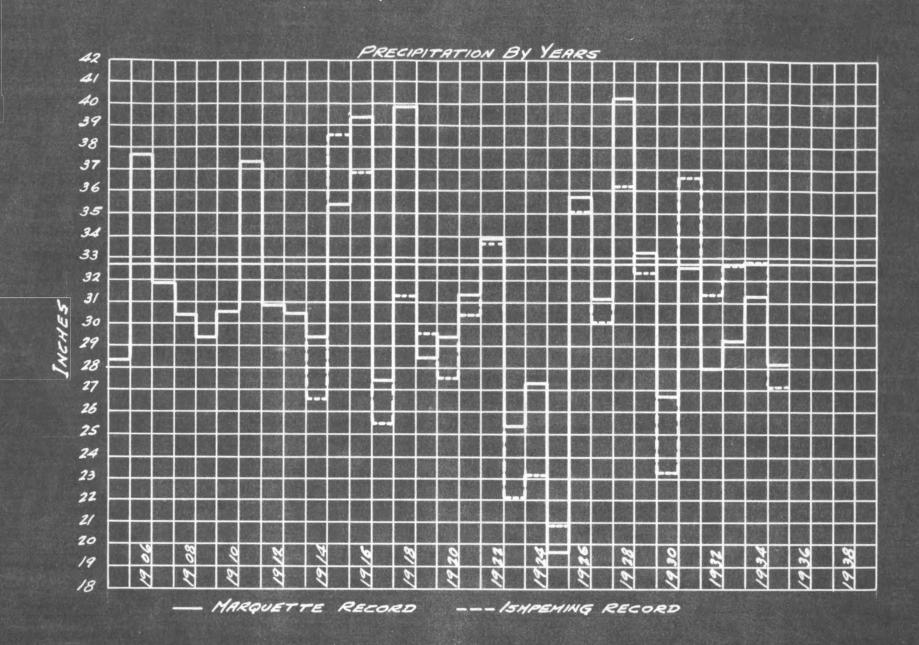
DISTRIBUTION OF ELECTRIC POWER 1931-1932-1933-1934-1935.

0

DISTRIBUTION OF ELECTRIC POWER 1931-1	1932-1933-1934-1935.
SHOVELS, CRUSHERS AND SURFACE TRAMS.	1931
UNDERGROUND SCRAPERS TRAMS AND LIGHT	1935
MISCELLANEOUS POWER AND LIGHT	
HOIST 5	
PUMPS	
POWER PLANT AUXILARIES AND TRANSMISS	SION LOSSES.
COMPRESSORS	
s	SOLP TO DUTSIDE PARTIES
1000 1000 1000 1000 1000 1000 1000 100	2800 2900 3000 3100 3200 3300 3500 3500

KILOWATTS.

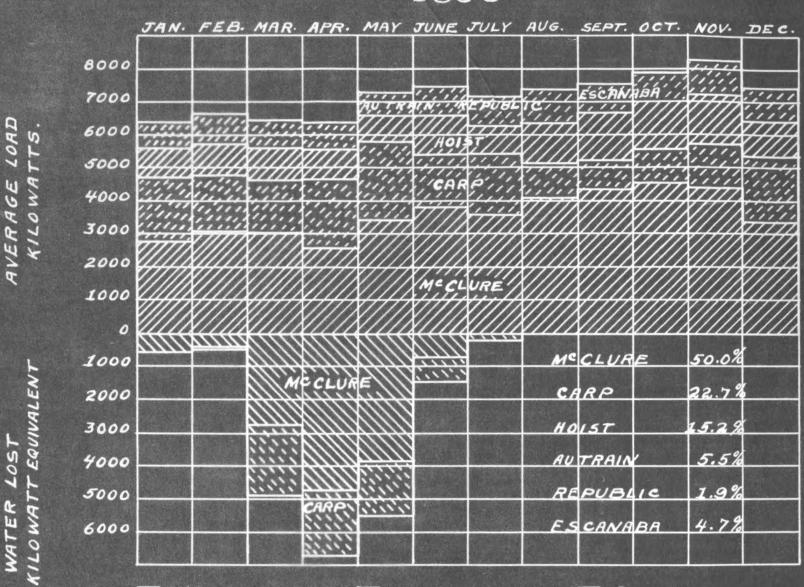




•

1935

0



DOURRENT MADE WATER LOST BY WATER POWER DEP OVER FLOW

POWER PURCHASED

11.

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 injured man is seen just as soon as possible following an accident and this has served to make the man realize the advantages of the Workmen's Compensation Law, and in this way it has been possible to readily secure the signature of the man to the compensation agreement.

All payments have been made promptly, the checks being delivered to the men here at the office, when they are able to come for them, or they are delivered to them at the hospitals or at their homes.

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

The 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 andfor 500 weeks for total disability.

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

#### Linnea Erkkila.

Miss Erkkila was employed as a nurse at the Ishpeming Hospital until November 1934 when she claims that she was disabled as a result of an antityphoid innoculation administered some months before. She filed a claim for compensation through her attorneys, Derham & Derham. We requested her to submit to an examination by our doctors, which she refused to do. The Derhams withdrew from the case shortly before the first hearing, which was scheduled for January 28th, 1935. Miss Erkkila did not appear and the case was postponed; and it was again postponed on March 7th because of her non-appearance. The hearing was then set for March 20th and when she failed to appear for the third time the Deputy Commissioner permitted us to enter our defense and he later made an award in our favor.

#### David Lampinen - Athens Mine.

Lampinen won a decision before a Deputy Commissioner on October 19, 1934, for a leg injury which he claims occurred on May 29th, 1930. We appealed from this decision and the case was heard before the Full Board on March 20, 1935. They reversed the decision of the Deputy Commissioner on the ground that Lampinen's claim had not been made within the statutory period.

a. Workmen's Compensation (Continued)

### William Merrila - Negaunee Mine, Acc. Rept. #605.

Claim was filed against the Fidelity & Casualty Company by Eli, 22, and Emil, 21, younger brothers of William Merrila, who was accidentally killed on March 20, 1934. Both claimed they were dependent upon him at the time of his death and, therefore, entitled to compensation. Their claim was denied by a Deputy Commissioner and they appealed, and following the hearing before the Full Board on March 20, 1935, compensation was again denied. Their attorney then tried to bring the case before the Supreme Court but writ of certiorari was denied, which closes the case.

#### Emil Linna - Cliffs Shaft Mine.

On October 17th, 1935, Linna filed an application for adjustment of claim in which he asked that he be allowed compensation, either total or partial, because of a hernia which he suffered on November 30, 1932, while employed at the Cliffs Shaft mine. Linna did have a hernia repaired at the Ishpeming Hospital on December 2, 1932, but we denied that it was due to an accidental injury. In a hearing before the Deputy Commissioner held on November 22, 1935, he received an award covering the period from December 2,1932, to March 1, 1933, this being the period he was disabled following his operation. Linna has appealed from this award. Following his return to work on March 1, 1933 he was employed at the Cliffs Shaft mine until April 30th, 1933, when the mine shut down. Following this he was employed on various relief projects until August 14, 1935, and he feels that he should have partial compensation during this period and total compensation after August 14th. No date has been set for the hearing before the Full Board.

## Adolph Wheeler- Negaunee Mine, Acc. Rept. 584.

Wheeler was employed on the top tram at the Negaunee Mine. On March 29, 1930, some ore slid out of the chute and struck his left leg, tearing the ligaments of the knee. He was disabled until May 19, 1930, when he returned to work at his regular job and continued in our employ until October. He had suffered from myocarditis for some time and had been under a doctor's care. Because of his heart condition his physician recommended that he quit work and he decided to take his pension. He was put on the pension roll on January 1, 1931, and he died on February 12th. In October 1935 Mrs. Wheeler filed a claim for compen sation in which she states that her husband's death was attributable to the injury which he sustained on March 29, 1930. Her claim came on for hearing before a Deputy Commissioner on November 22, 1935 but Mrs. Wheeler did not appear and the case was continued. It will undoubtedly be scheduled for hearing early in 1936.

## Sidney Wales - Spies Virgil Mine, Acc. Rept. #144.

Wales was injured at the Spies Virgil mine on June 22, 1933. He was picking samples on a loaded railroad car when in some manner he fell from the car, landing in a sitting position on the ground some ten or twelve feet below. X-rays reveal no bony injury but since the accident Wales complained of pains in the back and hips and disability in one leg. He was paid compensation by

11.

a. Workmen's Compensation (Continued)

## Sidney Wales, (Continued)

The Fidelity and Casualty Company from the date of the accident to August 15, 1935, when they petitioned the Department of Labor and Industry for a stop order. The case was set for hearing on September 23rd, but was postponed due to the inability of two of the doctors to appear on that date. The case was heard at Crystal Falls, Michigan, on December 19th, 1935, the testimony on both sides being wholly medical. Wales had just returned from Ann Arbor on the day before the hearing, he having gone there on his own initiative, and as the defense was uncertain as to whether they would wish to take the deposition of the physician who examined him in Ann Arbor, the Deputy allowed him until January 2, 1936, to decide. If Wales decides to take the deposition of the Ann Arbor physician we will obtain the deposition of Dr. Spencer Braden of Ann Arbor, who made an examination of Wales at the Ishpeming Hospital in August 1935.

#### Julius Hedstrom.

Hedstrom suffered a contusion of the chest at the Athens Mine on April 20, 1934, when the sling holding poles which were being hoisted broke and the rope caught him around the chest. He lost no time until January 10th, 1935, when he claims he was forced to give up work because of the pain in his chest. Hedstrom felt that the above injury aggravated an old injury which he received at the Gardner-Mackinaw mine on December 15, 1930, when he fractured several ribs; an opinion concurred in by Dr. MacIntyre, who is caring for him. Hedstrom returned to work as a dryman at the Gardner-Mackinaw mine in November 1935. While he was idle we rendered some assistance. He has made no formal demand for compensation and he probably will not do so.

11.

## a. Workmen's Compensation (Continued)

#### FATALITIES:

The following fatalities occurred during 1935.

John E. Oja

Age 42

Cliffs Shaft Mine, Acc. Rept. #1071.

Occurred April 15, 1935.

Moving chunk with a bar. Tip of bar broke off and he lost his balance and fell into a raise.

Compensation at \$18.00 a week for 300 weeks

Funeral Expense

5400.00 200.00 \$ 5600.00

Gabriel Saari Age 52

Cliffs Shaft Mine, Acc. Rept. #1073.
Occurred July 10, 1935.
Fall of ground.
Compensation at \$18.00 per week
for 300 weeks
Funeral Expense

5400.00 200.00 \$ 5600.00

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

Mine	Name	Acco. Rept.	Date of Accident	Date of Final Payment
Holmes	Solomon Ristimaa	410	9/28/29	6/29/35
Lloyd	Allesandro Boz	755	12/10/29	9/10/35
Maas	Joseph Paris	447	12/14/29	9/13/35
Athens	Peter Koskela	324	3/25/30	12/24/35
Maas	August Kaheliin	458	1/ 5/31	Lump sum
	settlement made	in July 1935.		

11.

a. Workmen's Compensation (Continued)

Following is a list of the more serious cases occurring during 1955 other than fatalities:

Mine and Report No.	Neme	Nature of Injury	Compensation Paid.
Athens #336	Isaac Maki	Fracture of 3 trans- verse processes of spine	360.00 *
Maas			
#476	Alfred Laak	Loss 1/2 index finger.	315.00
Maas			
#480	James Langdon	Fractured right patella.	50.40 *
Tland			
Lloyd #775	Clarence LaFreneire	Fractured right femur.	288.00 *
Negaunee #609	Emanuel Thomas	Fractured both femurs.	235.20 *
		TIEGOUITOR BOOM TOMATE	2000
Gardner-Mackinaw #68	Floyd Erickson	Compound comminuted	1.
#00	Floyd Erickson	fracture right fibula	483.00 *
Gardner-Mackinaw	Charles Poggi	Fracture of left tibia	
	0.000	and fibula	444.00 *
Canisteo			
#17	Mike Hecemovich	Loss of 1/2 right index	
		finger, 40% of middle	
		finger, and 35% of ring finger.	306.28 *
		TIMEST.	000.20

<sup>\*</sup> Payments are still being made.

11.

## a. WORKMEN'S COMPENSATION (Continued)

## Compensation Payments including Medical Expense.

Year 1912 1913 1914 1915 1916 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935	C. C.I.Co., 1073.81 13149.70 27416.82 15657.71 32404.74 45129.92 43734.77 59417.51 59535.76 59065.26 56794.35 57856.37 56335.89 49376.47 51123.41 86156.10 87186.58 76959.01 76753.51 75167.79 52920.75 23425.69 26672.34 34874.17	Negaunee Mine Co.  105.08 1152.87 2840.13 1699.28 3496.75 5301.30 6198.93 11724.68 8898.01 4709.80 5283.24 4142.00 5487.07 4464.79 5453.85 5311.69 6552.66 8899.76 10603.63 10723.30 12137.00 9605.70 7573.97 6854.34	Athens Ir. Mng. Co  27.15 446.63 656.07 672.29 911.46 1197.57 2234.77 2928.15 5208.92 2048.23 5007.88 6394.01 8305.60 7087.93 5489.81 6235.08 6303.92 5803.45 5233.65 5012.72 5298.56 8429.38 5154.12	514.40 939.86 1831.30 1895.50 1930.48 1867.50 1398.25 993.45 468.46 218.75	Mesaba C1. Ir.Mng.Co. 263.00 3057.46 2953.08 1866.67 4874.48 9408.59 7316.55 9537.84 7147.98 4576.56 3557.86 2531.15 1489.36 1336.00 2180.61 2468.61 3778.56	9.00 292.83 1236.18 559.63 33.75	Canistee Cl.Mng.Co.	1993.76 1700.87 1074.00 614.00	TOTAL 1178.89 14329.72 30702.58 18013.06 36573.78 51342.68 51131.27 73639.96 74409.38 71937.06 65992.49 71880.73 77625.56 69463.41 73697.43 105045.44 106371.18 97913.38 102209.24 98088.74 73972.97 42128.01 45612.76 50879.94
Totals \$	1168198.43	149169.86	96087.35	12057.95	68344.36	2131.39	2768.69	5382.63	1504140.66

11.

. WORKMEN'S COMPENSATION (Continued)

# ANNUAL STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY IST, 1935 to DECEMBER 31st, 1935.

Compensation paid on 1935 accidents	6668.58	
Compensation still pending	73080.32	
#####################################	11292.25	
Total		\$ 91041.15
	58740.42	
Less medical paid on accidents occurring prior		
to January 1, 1935	324.00	
Less medical paid on Insurance Company cases	65.00	
		59129.42
Cost of 1935 accidents		31911.73
Percentage of payrolls		.01675
Number of accidents on which compensation payments were made		39
Number of non-compensable accidents		2
Number of slight accidents which caused not over 1 day's lost	time	282

The above figures, and those on the large compensation sheet, cover only these accidents on which we carry our own risk.

Our experience under the insurance plan for Michigan properties is shown on another statement.

#### ANNUAL REPORT - YEAR 1935

STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY 1, 1935 TO DECEMBER 31, 1935.

	Average No. of Employes	No. of Fatal Accs.	Non-H	. of -Fatal idents	Actual Comp. Paid in 1935	1922	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934			Actual Payments to Phy- sicians	Contin Case Fatal	
Cliffs Shaft Cliffs Shaft Laboratory Chief of Police District Welfare	315 3 1 4	2	5	51	8012.48				1872.00				936.00				1996.58	21446.64	1974.50 18.00 6.00 24.00	4	
Employes Wood, Gwinn District Gardner-Mackinaw General Storehouse General Welfare Geological Department	137 69 2 1		2 2	7 14	624.00 981.00 1039.21								936.00	624.00		43.20	981.00 146.41	3948.00 117.52 936.00	837.75 417.00 9.00 3.50	1	
Gwinn Office Holmes Ishpeming Office Lloyd	1 15 158		6	39	1372.80	1.8		728.00	7.00		468.00	904.80	936.00				1039.45	3514.80 8739.40	6.00 85.00 982.25		
Maas Mechanical Engineering Mining Engineering Purchasing Department	307 3 5 4		12	49	8008.56	919.34		1932.00			413.28 666.00	2109.80	936.00 2548.64			786.75	1039.45	6230.77	982.25 1931.75 15.00 32.50 21.50	2	
Republic Safety Department Shipping Department Spies Virgil	1 4 12				245.29					245, 29									3.00 22.50 137.75		
Stephenson Filden Vorkmen's Compensation Saranac Investigation (iscellaneous	37 1 50		ž	1 5	1512.00 936.00		56.00	728,00	728.00							936.00		879.67 4068.00	224.50 9.00 2.50	1	
The Cliffs Power & Light Co.	35		1	1	6.00												6.00		4.50		1000
legaunee thens	235 201		1 3	36 39	5411.34 3903.62			129.60 799.86		808.86 83.20	1872.00 936.00	1200.88 936.00	249.60 235.76			915.20 435.80	235.20 477.00	14718.88 4440.00	1443.00 1250.50		
Total - Michigan Mines ibbing Office olman Brown anisteo	1601 11 6 224	2		1 41	37358.63 1561.90	919.34	56.00	4317.46	2600.00	1137.35	4355.28	5231.28	NUMBER OF STREET	624.00	206.08	6238.45	631.11	69039.68	9673.75 69.00 34.50		
ill Trumbull  Total - Minnesota Mines	6 247	A COST	4 1	1 41	667.16	100000 A	100					667.16 667.16			206.08	724.71	631.11	3759.06 4040.64	33.00		000
Total - All Mines	1848	2	200 B	2 282	39587.69	919.34	56.00	4317.46	2600.00	1137.35	4355.28	CONTROL STATE	5842.00	624.00		6963.16	0.0000000000000000000000000000000000000	Market Control of Control	1	9	1

This statement covers only those accidents on which we carried our own risk

11.

a. Workmen's Compensation. (Continued)

For the purpose of reference, mention is made here of the agreement with the Fidelity and Casualty Company of New York to carry the compensation risk of the Company from May 17th, 1933, to May 16th, 1934. The insurance company wrote the compensation payments and our own Company assumed the medical expense, the payment of 50¢ per man per month being made at the different properties.

11.

#### a. Workmen's Compensation (Continued)

Estimated cost of accidents which occurred at Michigan properties during the year from May 17, 1933 to May 16th, 1934, inclusive, the compensation risk being carried by The Fidelity & Casualty Company of New York during this period.

	C.C.I.Co.	C.P.&L.Co.	Mine Co.	Athens Iron Mng.Co.	Total
Premium earned	9197:47	664.87	1564.67	1338.09	12765.10
Medical Expense	4014.43	164.30	814.99	727.16	5720.88
	13211.90	829.17	2379.66	2065.25	18485.98
Compensation paid by The					
Fidelity & Casualty Co.					
1933	973.60		89.88		1063.48
1934	3479.60	811.52	386.68	24.01	4701.81
1935	2034.00	757.12			2791.12
Total Compensation Payments	\$ 6487.20	1568.64	476.56	24.01	8556.41
Estimated Deferred Liability	5144.63	2999.36			8143.99
Cost of Accidents	11631.83	4568.00	476.56	24.01	16700.40
Premium Earned as above					12765.10
Estimated Loss to Insurance C	ompany				3935.30

The case of Sidney Wales, Spies-Virgil Mine, is being contested. Hearing was held before a Deputy Commissioner on December 19th, 1935, but no decision has been received.

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. These figures cover only our own risk.

	Percentage	Percentage of	Percentage of men
	of Payroll.	Compensable Accidents	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	001903	43.76	8, 29
1917	.1268	41.71	7.84
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
1933 to 5/17/33	.01479	90.00	.60
1934 after 5/17/34	.02214	93.75	.90
1935	.01675	95.12	2.11

11.

a. Workmen's Compensation (Continued)

There were no changes made in the Compensation Law of Michigan in 1935.

There was a complete change in the Department of Labor and Industry. The Board is now as follows:

Frank F. Ford, Chairman.
William H. Wise,
Frank B. Wade
Betty W. Allie
W. F. Doyle, Secretary.

John W. Bennett was appointed Deputy Commissioner for the Upper Peninsula District.

In June 1935 by separate enactment a Commission of five men was appointed to investigate the matter of occupational disease, to report thereon to the next legislature; including a form of law, which, in their opinion, will meet the requirements.

Mr. Clancey was appointed one member of this commission.

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

	When Law wen	t As amended in effect	In effect	In effect
MICHIGAN LAW	Sept.1,1912	Ang.14,1919	Aug.18,1931	Sept.4,1927
Percentage of weekly wages	50	60	60	66 2/3
Maximum weekly compensation	10.00	14.00	14.00	18.00
Minimum weekly compensation	4.00	7.00	7.00	7.00
Waiting period	2 weeks	1 week	1 week	1 week
Waiting period picked up				
at end of	8 weeks	6 weeks	6 weeks	6 weeks
Maximum payment	\$3000.00	4200.00	4200.00	5400.00
Maximum compensation for				
total disability	\$4000.00	6000.00	7000.00	9000.00

11.

## a. Workmen's Compensation (Continued)

#### MINNESOTA COMPENSATION LAW.

There were no changes made in the Minnesota Compensation Law in 1935.

The present members of the commission are as follows:

F. T. Starkey Chairman

J. D. Williams,

N. H. Debel

E. C. Nelson, Secretary

Emily L. Olson, Assistant Secretary.

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

	When Law went into effect Oct. 1,1913	As Amended April 26, 1919	As Amended June 6, 1921	In effect since Oct. 1, 1923.
MINNESOTA LAW.				
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 record is shown in the annual report for that year.

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

23.

## a. PENSION SYSTEM.

The year 1935 completed the twenty-seventh year of the operation of the pension system.

On January 1, 1933, the pension payments were reduced fifty per cent, those under \$20.00 remaining the dame; those over \$20.00 having a minimum rate of \$20.00.

No pensions were granted during the year.

The following Mining Department pensioners died during the year:

No.	Name	Date Pensioned	Date Died
No. 45	John Baer	10/ 1/1913	1/30/1935
50	John Eckloff	5/ 1/1914	4/22/1935
107	Erick Peterson	1/ 1/1921	3/ 2/1935
153	Charles Letcher	5/ 1/1922	9/29/1935
182	Thomas Dawe	4/ 1/1925	8/4/1935
202	Thomas Lucas	12/ 1/1926	6/25/1935
206	John Westlund	4/ 1/1927	3/13/1935
218	Alfred Bone	11/ 1/1927	2/24/3935
220	Simon Uren	1/ 1/1928	6/ 1/1935
248	Fred J. Baker	12/ 1/1930	4/19/1935

Number of pensions granted during year	0	0
Number of Deaths	11	10
Number of Old Age pensions in force Dec. 31,	94	84
Average Annual Pension	288.79	284.33

There were no additions to the Furnace Department roll during 1935. There was one death, this being

		Date Pensioned	Date Died
No. 18	Peter Bergstrom	1/ 1/29	1/21/35

On December 31, 1935, there were seven pensioners on the Furnade Department pension roll with an average annual pension of \$271.81.

Widows and

23.

## a. PENSION SYSTEM (Continued)

Pension payments for the years 1908 to 1935 inclusive are as follows:

Mining	Depar	tment;
--------	-------	--------

		WITCOMP GILL	
Year	Old Age	Orphans	Total
1908	60.10	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	29 231.85
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	40615.13	0.00	40615.13
1933	30981.29	0.00	30981.29
1934	28205.25	0.00	28205.25
1935	24987.66	0.00	24987.66
	647002.14	22547.00	669549.14

Payment made by Cleveland Office

23.

## a. PENSION SYSTEM (Continued)

## Furnace Department.

The pension payments for the years 1910 to 1935 inclusive are as follows:

Year	Old Age	Widows and 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	1178.38
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
1933	2528.04	0.00	2528.04
1934	2309.43	0.00	2309.43
1935	1930.54	0.00	1930.54
	\$ 54217.38	\$ 900.00	\$ 55117.38

23.

### . PENSION SYSTEM (Continued)

#### Republic Mine.

No new pensioners were added to the pay-roll during the year.

There are fourteen pensioners on the roll, the average annual pension being \$247.65.

The payments made from Oct. 1, 1920 to Dec. 31, 1935 are as follows:

1920	278.61
1921	3427.97
1922	5672.84
1923	6641.51
1924	8172.96
1925	8279.07
1926	9539.90
1927	12185.24
1928	12768.21
1929	14199.74
1930	13148.40
1931	11809.51
1932	7673.30
1933	4908.04
1934	4400.52
1935	4160.52

\$ 127366.35

There were no deaths on the Republic Mine pension roll during 1935.

#### Land Department.

Erick Johnson continued on the pension roll during the year.

Total pension payments from January 1, 1927 to December 31, 1935, are as follows:

1927	333.36
1928	333.36
1929	333.36
1930	333.36
1931	333.36
1932	250.08
1933	240.00
1934	240.00
1935	240.00

\$ 2636.88

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 the Red Cross if no further payments are called for.

During the year 1935 we had one call in regard to a payment from these funes. In the settlement of an estate check No. 370 of the Fatal Accident Fund, made payable to Axel Kulback, was discovered and payment was made of the amount of this check -\$2.22.

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 understanding some use has already been made of the funds. A new boiler was put in the hospital, and for a time the school furnished the fuel and Dr. Van Riper made examinations of the school children at the hospital. Later the School Board was short of funds and during 1935 coal was furnished from the funds in the hands of the Red Cross.

The statement of these balances in savings accounts at the Miners' National Bank and the Miners' First National Bank is as follows:

PENSI ON	DEPT.	ANNUAL	REPORT	YEAR	1935.

23. b. Republic Mine Funds (Continued)

## Republic Mine Relief & Sick Benefit Fund.

Miners' National Bank	
Amount on deposit Dec. 31, 1933	58.83
Distribution 1934 60% 35.30	
Distribution 1934 20% 11.77	47.07
Balance in old bank Dec. 31, 1934	11.76
Distribution 1935 12 1/2%	7.35
Balance in old bank Dec. 31, 1935	\$ 4.41
Miners' First National Bank:	
January 15th, 1934 60%	35.30
Interest for 1934	.79
Distribution 1934 20%	11.77
Balance Dec. 31, 1934	\$ 47.86
Interest for 1935	1.12
Distribution 1935 12 1/2%	7.35
Balance December 31, 1935	\$ 56.33
Amount on deposit Dec. 31, 1933  Distribution 1934 60% 101.59	\$ 169.32
Distribution 1934 60% 101.59	
Distribution 1934 20% 33.86	135.45
Balance in old bank Dec. 31, 1934	33.87
Distribution 1935 12 1/2%	21.17
Balance in old bank Dec. 31, 1935	\$ 12.70
Miners' First National Bank.	
January 15, 1934 60%	101.59
Interest for 1934	2.28
Distribution 1934 20%	33.86
Balance on hand Dec. 31, 1934	\$ 137.73
Interest for year 1935	3.24
Distribution 1935 12 1/2%	21.17
	162.14
Check No. 370 paid	2.22
Balance on hand Dec. 31, 1935	\$ 159.92

23.

c. Suspense Funds.

In the 1918 Annual Report there is a complete statement of the payments made from the Suspense Funds 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 Funds.

d. Visiting Nurses.

The work of the visiting nurses has continued throughout the year and, because of the depression, their services have been of very great help.

This work was begun in Ishpeming on May 1, 1908, at Negaunee on September 1, 1912. It began at Gwinn on Deptember 1, 1910 and was 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 Nurse	s.		the 2						
The following	is the	report of the I	shpe	ming	Visiting	Nurse f	or the	year	1935:
Total number of	f pati	ents cared for d	luri	ng ye	ar			539	
Number of new	cases	cared for durin	g y	er				262	
Total number of	f visi	ts to patients					3	599	
Number of fami	lies v	isited for the f	irs	t tim	В			36	
Number of soci	al cal	ls						39	
Number died								7	
Classific	ation	of new cases for	the	yea	r:				
Number of adul	ts	146	Ma.	Le	20	Female	,	126	
Number of chil	7 7000	116	Mal		57	Female		59	
Nationali	ties o	f new cases for	the	ye ar	•				
American		193	Ita	alian				13	
English		16	No	rwegi	an			3	
Finnish		23		edish				7	
French		7							
Diseases	and nu	mber of new case	s:						
Aenemia	2	Fracture		1	Paralysis			1	
Asthma	4	Heart trouble		11	Phlebitis	3		2	
Bowel Trouble	1	Hypertension		1	Pleurisy			1	
Bronchitis	2	Hysterics		1	Pneumonia	3		3	
Burns	2	Infants, Newbo	rn	17	Post Open	rative		24	
Bursi tis	1	Infections		19	Prenatal			22	
Carcinoma	5	Influenza		7	Pul. Tub	erculosi	8	1	
Child Welfare	15	Injury		15	Rupture			3	
Cold	13	Lumbago		1	Scarlet :			6	
Cyst	1	Mal-Nutrition		1	Stomach '	Frouble		2	
Cystitis	1	Mastoditis		4	Tonsilit:	is		9	
Diabetes	2	Miscarriage		3				16	
Dysentery	1	Obstetrical		11	Undiagno	sed		4	
Eczema	1	Otitis Media		1	Var. Ulc			5	
					Whooping	Cough		19	

Visiting Nurse: Miss Myrtle Welander.

-PENSION	DEPT.	ANNUAL	REPORT	YEAR	1935.

Visiting Nurses The following			e Negaune	e Visiti	ing Nurse for th	e year 1934
Total number of	e pati	ients cared for	during	ear		1055
Number of new						667
Total number of						5318
Number of famil				me		4
					investigation c	alls 45
Number of famil				ovisions		
Number of socia		THE RESERVE TO SERVE THE PARTY OF THE PARTY				535
Number died						9
Classifica	ation	of new cases f	or the ye	er:		
Number of adult	ts	292	Male	69	Female	223
Number of child	lren	375	Male	196	Female	179
Nationali	ties o	of new cases fo	r the year	r:		
American		359	Aust	rian		1
Danish		1	Fren	ch		8
English		15	Ital	ian		23
Finnish		243	Swed	lish		17
Diseases an	nd num	nber of new cas	es:			
Aenemia	2	Gri ppe	9	Pleuri	isy	3
Appendicitis	29	Heart Troubl	e 8	Pneumo	onia	2
Asthma	1	Infants, New	born 19	Post (	perative	101
Bowel Trouble	22	Infections	27	Pregna		25
Bronchitis	8	Injury	30	Pyeli		3
Burns	6	Larngitis	1	Quincy		4
Carcinoma	1	Lumbago	4	Rheums	N. T.	3
Chicken Pox	7	Mal-Nutritio		Ruptur		6
Cholystitis	6	Mastoditis	1		et Fever	78
Cold	42	Mastoid	2	Sore I		3
CCystitis	2	Measles	11	Sprain	Market and the second s	3
Diabetes	4	Mumps	1		h Trouble	7
Eczema	1	Neuritis	1	Tonsel		38
Epistaxis	1	Obstetrical	22		sified	4
Gastro-Enterit	Photo by 12 78 mm	Otitis Media		Undia		3
Gastric-Ulcer	19	Pertusis	14	Var. U		2
Gen. Debility	2	PetetMal	1	Whoop	ing Cough	44

Visiting Nurse: Miss Ina E. Atkin.

,23.

## d. Visiting Nurses (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	539	262	20	126	57	59
Negaunee	1055 1594	929	69 89	223 349	196 253	179 238
7	Total No. of Visits	Number Died	Social Calls		milies Visit rst Time.	ed for the
Ishpeming	3599	7	39		36	
Negaunee	5318 8917	8 15	535 574		40	

## NATIONALITIES OF CASES:

	American	Austrian	Danish	English
Ishpeming Negaunes	193 359 552	0 1	0 1 1	16 15 31
	Finnish	French	İtalian	Swedish
Ishpeming Negaunee	23 243 266	7 8 15	13 <u>23</u> 36	7 17 24
	Norwegian			
Ishpeming Negaunee	3 0 3			

23.

f. North Lake Club.

The work of the Club has continued during the year under the supervision of Mr. Stakel. George S. Bowden has acted as Treasurer and Dewey Urquhart as superintendent.

The Inland Steel Company has cooperated in it's operation and management and the Club is filling a very useful place in the community.

23.

g. Gwinn Association.

Mr. E. L. Miller has continued in charge of the work at the Club House as superintendent.

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 1932 it was decided to reduce the payment made by the men to 25¢ per month, the Company paying an additional 25 cents.

23.

#### Gwinn Association (Continued.)

The following report and summary of the activities of the Association Club-House has been taken from the records kept daily during the year. port includes activities taking place in the Club House and those which are supervised by other agencies but where the equipment is furnished by the Club, whether taking place in-doors or on some location under the control of the Association.

#### MEMBERSHIP

The membership geld steady during the year, due mostly to the fact that the number of men employed at the Gardner-Mackinew Mine showed only a slight variation during the year.

Number members o	n roll	January	ls t,	1935	229
Number members o	n roll	January	1st,	1936	248
High membership	for yea	r - De	cember	r	248
Low membership	for yea	r - Ju	ly		199
Average monthly	members	hip			232
Low membership	for yea	r - Ju			199

Number of men securing membership by working on wood-cutting job

#### ATTENDANCE.

The estimated attendance at the building showed an increase for the fall and winter months, but a decrease during the period when Eastern Standard time is used. More local residents are securing summar cottages on the near-by lakes and their families are spending their spare time enjoying camp life.

41

Total estimated attendance at building Average monthly attendance 5730

The attendance for outdoor activities showed an increase, due to the fact that the ice skating rink has been enlarged and also to the fact that a better check was secured on the activities at Bass Lake camp due to having a regular caretaker at that location.

> Estimated attendance covering ice skating rink, playground, tennis and horse-shoe courts, baseball leagues for adult men and junior boys, playground ball for girls, supervision of Association baseball team and Bass Lake Camp . . . 18,165

#### RECEIPTS AND EXPENDITURES:

Total F	Receipts,	including	1934	balance(\$1,084.90)	3	5,251.20
Total I	Expendi tur	es 1935				4,011.95
I	Balance Ja	nuary 1,	1936			1,239.25

#### BUFFET ACCOUNT.

Receipts for year	220.30
Expenditures for year	134.83
Profit	85.47

## BILLIARD AND BOWLING ACCOUNT

ND DOWLLING ACCOUNT.	
Receipts for year	431.00
Expenditures for year	150.78
Profit	\$ 280.22

23.

## g. Gwinn Association (Continued)

#### GENERAL ACTIVITIES AND ORGANIZATIONS USING BUILDING.

- General committee meetings.
- 164 sessions kindergarten school
- 16 memeetings Women's Study Club.
- meetings 3 social parties 1 annual dance Town Club.
- parties under supervision High School no dancing.
- 5 dancing parties by High School classes.
- 5 dancing parties by Married Folks.
- 3 meetings by Sportsmen's Association.
- 3 meetings by local Chamber of Commerce.
- 8 social dances by different organizations.
- 24 total number of dam ces by different organizations for year.
- rehearsals for local plays. 15
- 5 social card parties to raise funds by different organizations.
- 99 lunches or dinners served by different organizations.

#### EVENTS OF SPECIAL INTEREST.

Annual Physical Training Exhibition by High School students.

Annual Easter Monday Ball by local Firemen.

Annual Meeting of Managers - InterCounty Baseball League.

Annual Junior Party Prom by Junior Class High School.

Annual Scout Ceremonial by Local Scout Council and Troops.

Annual Chicken Supper by St. Anthony Guild.

Banquet and Dance arranged by Town Club in honor of

High School Basketball team championship.

by Scout Troops.

Annual Dance to raise funds

for Christmas treat

Annual Card Party

Annual Church Supper

Annual Party for Scout Mothers

Annual Hallowe'en Party

Annual Christmas treat

Annual Lute-fish supper

Annual Firemen's Ball

by Town Club.

by Ladies Guild.

by Methodist Church.

by Junior High School students under

supervision of faculty.

by Entire Community.

by Gwinn Missionary Society.

by Local Firemen.

#### CHURCH ORGANIZATIONS USING BUILDING.

- 10 events by Church organizations to raise funds.
- 11 meetings by Gwinn Ladies Guild.
- 9 meetings 1 dinner by Gwinn Missionary Society.
- 8 meetings by Methodist Ladies Aid.
- 3 suppers by different Church organizations.
- 1 bazaar and fair by Methodist church.
- 5 meetings by Swedish Ladies Guild.
- 6 meetings by St. Anthony's Guild.
- 3 social parties by Epworth League.

1426

#### PENSION DEPT. ANNUAL REPORT YEAR 1935.

23.

## g. Gwinn Association (Continued)

ASSOCIATION BAND.

The Association Band was very active during the year. They held regular weekly rehearsals at the Club House and had several engagements, some of which were repeat engagements from the previous year. One exchange of concerts with the Negaunee Band was held.

Summary:

41 rehearsals

2 local engagements

2 out-of-town engagements

1 out-of-town concert

5 local concerts

1 social party with lunch.

LIBRARY AND READING ROOM.

Withdrawals from the library decreased during the year due to the fact that the local school library placed in circulation many new books and local residents made use of the school library facilities.

Number of books loaned from library during year . . . . .

The reading room continues to be popular as most of the better weekly and monthly magazines are received and placed on the tables.

Weekly magazines 5 Daily newspapers 2
Monthly magazines 19 Weekly newspapers 2

SUPERVISED CARD PLAYING LEAGUE.

The cribbage playing fans continue their interest and the league opened this year on December 6th. A weekly schedule ill continue until April 2nd, 1936. Six eight-men teams complete the league and the men look forward to their Crib Night.

During 1935 18 nights' play was held and at the conclusion the Championship Team was given a banquet.

During the fall of 1935 a group of 20 women organized a bridge league and play will continue until April 6, 1936. This organization meets every other week and during 1935 held five nights of play.

BOWLING.

The Senior Men's League was composed of eight 3-men teams. All teams completed their schedule of 63 games. The Women's League consisted of four 3-member teams and this league completed a schedule of 45 games. As part of their physical training course, students of the local High School are given instruction in bowling on the club alleys.

The alleys were in good condition and two new balls were purchased beside the usual requirements of new pins.

23.

#### g. Gwinn Association (Continued)

Including all work done in the gymnasium and all outdoor recreations, such as supervising work at school playgrounds, baseball leagues for adults, Junior Boys and playground league ball for girls, also management of the Association baseball team, ice skating rink, tennis and horse-shoe pitching courts, and supervision of Bass Lake camp.

Employees of the Association continue to supervise the High School physical education department and act as coach of the varsity athletic teans. The Association furnishes most of the equipment to carry on the above work and also provides equipment for summer activities where work is supervised by other parties.

Senior members make use of the gymna sium facilities for volleyball, handball, basketball and miscellaneous games. The Women's class met twice weekly under Association supervision.

Summary of Supervised work; Gymnasium.

	Periods	Attendance
High School Girls' classes	119	2912
High School Boys' classes	117	3083
High School basketball practice	60	677
Junior Boys recreation (Saturday A.M.)	13	745
Senior men using gym	83	865
Women's classes	25	299
Total supervised work in gym		
not including baske tball	417	8581

The following basketball games were played under Association supervision.

High School team . . . . 8 games at home. . . . . 11 away.

High School team again won Class "C" Championship of the Upper Peninsula.

Junior League, including tournament games 53

Senior League, composed of 4 local teams and 2 CCC teams 30

Senior League practice sessions 20

Attendance at all home games, including practice periods 5800

TENNIS COURT AND PLAYCROUND.

The tennis court as in condition for play 68 days during the season.

Attendance at court 625; at playground 1400; total 2025

Horse-shoe pitching court in condition 42 days - attendence 900

ICE SKATING RINK.

The ice skating rink was enlarged and was in condition for skating
65 days and was flooded 33 times. Attendence 6125

The Inter-County Baseball League composed of teams in Marquette and Alger Counties for the eighth season was under the supervision of secretary of the Association. The league had a very successful season as to attendance of spectators and also as to the ball playing displayed by the different teams. Beside the team entered in the above league, the Association sponsored a

23.

g. Gwinn Association (Continued.)

twilight league for adults, a junior deague for High School boys and a playground ball league for girls. Material for all these activities was furnished by the Association.

SummaryL

High School team played 2 games at home and 4 away.
Club team played 8 games at home and 7 away
Senior Twilight League played 15 games.
Junior League played 33 games.
Girls' League playground ball 10 games.

Attendance at all home games and practice sessions . . . 6,185.

BASS LAKE CAMP

Although there were not many requests for the use of the cottage, many of the local residents made use of the grounds and bathing facilities. Fishermen reported better luck on catching small-mouth bass than in previous years. Many residents of Ishpeming, Negaunee, Marquette and Escanaba use Bass Lake as their fishing location.

The Cleveland-Cliffs Iron Company arranged for a caretaker to be on duty from the first of July until September 15th.

#### Summary;

15 picnics by organizations

- 1 special picnic by employees of the Gardner-Mackinaw mine.
- 2 familie s had use of the cottage one week each.
- 1 non-resident had use of the cottage two days.
- 1 rabbit supper by local sportsmen's association in October.
- 30 Girl Scouts had use of cottage one week.
- 1 party had cottage five days.
- 2 parties had cottage four days.
- 4 parties had cottage for evening picnic suppers.
- 2 parties had camp overnight.
- 90 basket picnics by families.

Estimated number of bathers 1450
Estimated attendance at grounds during season 2930

The camp grounds were kept in good condition during the entire season and one new boat was added.

SCOUT ACTIVITIES.

Both Scout troops continued active during the year. The Scout leader was given some much needed assistance when two former Scouts offered to help without pay and much better results are being obtained through the increased supervision during class work.

Troop No. 1, composed of the older girls, now has a membership of 27, and Troop No. 2, the younger girls, has a membership of 22.

PENSION DEPT.

23.

#### g. Gwinn Association (Continued)

SCOUT ACTIVITIES (Continued)

During the month of June all Scout activities were cancelled, the Scout leader making up this lost time by staying the entire week with the Scout troops while they were at camp in August.

The following summary covers the work with both troops:

Meetings for class and social parties in building Attendance

89 1886

23 lunches or suppers were held; this includes lunches after meetings indoors, or held after hikes outdoors—such as marshmallow roasts, watermellon feeds and pot luck suppers.

l all-day picnic at lake.

- 5 meetings outdoors.
- 6 hikes.
- 2 skating parties.
- 2 Christmas parties for small children.
- 1 Hallowe'en Party.
- 1 Valentine party.
- 1 Entertainment for mothers.
- 1 annual ceremonial service awarding of merit badges.
- 30 members spent one week at Bass Lake.

Funds for Scout activities are raised locally by Scout members.
As in other years the Scouts celebrated National Scout Week. During this week every members wears the uniform, special programs are given, and on Sunday they attend church service in a body.

Those in charge of the Scout program in this district are to be complimented on the fine service they are rendering in behalf of the Scout members and the way it affects the entire district.

#### BUILDING.

During the year the work of re-decorating the interior of the building, which was started in 1934, was completed. Every room, including halls and stair-ways have been gone over in the past two years and the condition of the building at present is very satisfactory. All floors in the main part of the building were again re-varnished and waxed.

Outside work on both set of steps was completed and other outside work will receive attention the coming summer.

The Association purchased necessary supplies to keep all departments operating at full strength.

The residents of this district appreciate the financial assistance received from The Cleveland-Cliffs Iron Company, the Cliffs Power and Light Company, and the local Board of Education. They realize that without this assistance the Club would be unable to operate.

PENSION DEPT.

ANNUAL REPORT

YEAR 1935.

23.

h. Ishpeming Y. M. C.A.

The "Y" camp at Ross Lake was continued during the summer with a number of very successful periods of ten days each. The work has been under the direction of Mr. Lewis Smith, who has acted as Secretary since Mr. Rathman left. The officers of the Association are as follows:

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

During the year a considerable amount of work became necessary to keep the building in good repair, especially the roof and the interior. The matter was very carefully considered and it did not seem possible to raise funds at this time in the community to properly support the institution. In consequence of this it became necessary to close the building on October 31st, 1935. Since that time some conferences have been held looking towards the use of the Ross Lake camp equipment by the Scouts of Marquette County. The young people of our community are greatly missing the advantages of the building; and there is great demand for this work at Ross Lake to be continued. If some arrangement is made with the Scout movement the boys and girls of Ishpeming will still have the opportunity of making use of the camp at Ross Lake during the summer.

PENSION DEPT.

ANNUAL REPORT

YEAR 1935.

23.

i. Safety Work.

Meetings of the Central Safety Committee were held when necessary throughout 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

Mrs. Carl Brewer

Mr. William Conibear

Mr. W. H. Moulton, Secretary.

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

23.

j. Hospitals and Medical Service.

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

Ishpeming Hospital

The hospital has maintained its standards 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.

The work of the hospital force has been very satisfactory in every way. The operating costs have resulted in a very good showing for the year.

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. W. A. Corcoran

Dr. D. R. MacIntyre

Dr. W. A. Mudge

Miss Hildur Swanson, Superintendent.

Dr. Corcoran moved back to Ishpeming the last of May and began his work at the Hospital on June 1st.

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

. 23.

j. Hospitals, (Continued)

# ISHPEMING HOSPITAL STATISTICAL REPORT FOR THE YEAR 1935.

Number of patients remaining in hospital at beginning	of year	. 30
Number of adult patients admitted	834	
Number of child patients admitted	107	
Number of births	124	
Total new patients for the year		1065
Total of all patients for the year		1095
Towar of the parton to for the your		2000
Number of deaths	44	
Number discharged during year	1023	
Total number leaving hospital		1067
Number of patients remaining in hospital Dec. 31, 1935		28
Classification of new cases:		
Surgical	645	
Medical	178	
Obstetrical	120	
New Born	122	
Total	-	1065
Number of operations		522
Number of emergency room operations		87
Number of patient days		13165
Number of meals for patients	39395	
Number of meals for nurses, Superintendent & Dietitian	18621	
Number of meals for physicians and guests	168	
Number of meals for help	5366	
Total number of meals		63550
Average number of patients per day:		
1919 12.2		

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
1933	19.6
1934	28.9
1935	36.0

23.

### j. Hospitals (Continued.

### NEGAUNEE HOSPITAL.

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.

The work in Ne aunce has been taken care of during the year by two physicians, Dr. D. R. MacIntyre and Dr. W. A. Mudge, who have been kept very busy.

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 re-imburse him for the work, and some payment for men living in Republic, Champion, and Humboldt and who work in the mines of our Company and for the Inland Steel Company.

#### 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 offices in Gwinn.

#### IRON RIVER.

The new hospital has now had four years of service and it has been very satisfactory in all respects.

#### PAYMENTS TO PHYSICIANS.

For reference purposes the following statement is made:

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

23.

#### j. Medical Services (Continued)

### PHYSICAL EXAMINATION OF EMPLOYEES.

The Arrangement with the Trudeau Foundation of Saranac, N.Y. continued throughout the year with very satisfactory results.

The first examination was made on November 28th, 1933, and the examinations have continued with a representative of the Trudeau Foundation at the Ishpeming Hospital for the X-ray examinations. Our examinations were about completed in March, and Mr. Libby, the representative of the Trudeau Foundation, was in this region until June, at which time he took his vacation and returned to Saranac. He resumed his work here on October 23rd, 1935.

A new agreement was made in regard to the re-examinations of the men. All of the men of the different Companies are to be re-examined and new men will be examined, and in addition to the original list the employees of the Blueberry mine will be examined some time in 1936.

The following examinations have been made up to December 31st, 1935:

Cleveland-Cliffs Iron Co.,	1459
Cliffs Power & Light Co.,	8
Athens Mine	290
Negaunee Mine	317
Inland Steel Co.,	400
Pickands, Mather Co.,	42
Richmond Iron Co.,	33
Republic Steel Co.,	125
Calumet & Hecla Co.,	17
North Range Mining Co.,	9
Total	2700

Mr. D. E. Cummings has been in charge of the work and has made frequent visits here to go over the examination reports and to consult with Mr. Conibear in regard to the work at the mines.

The films of each case are sent to Saranac where they are studied by Dr. Sampson, who then reports his findings to us. These reports are gone over by us with Mr. Cummings, and the superintendents at the different mines are advised of the condition of any man requiring further consideration or examination.

The work has been very satisfactory and the examinations so thorough that the Company and the men themselves are bound to be greatly benefitted by the knowledge thus obtained.

23.

### k. Health.

All of our cities have been free from any serious epidemic but have had considerable scarlet fever and measles, fortunately not of a serious character.

The Health Officers of our three cities have been very active and the work done by them throughout the year has been very satisfactory.

Early in the year Dr. G. G. Barnett, who had been Health Officer in Ishpeming for a great many years, resigned, and Dr. J. P. Bertucci was appointed in his place. Dr. Barnett died on December 5th, 1935. The Health Officers are

Ishpeming - Dr. J. P. Bertucci Negaunee - Dr. W. A. Mudge Marquette - Dr. F. McD. Harkin.

### 1. Red Cross.

There was no change in officers in 1935, the officers remaining the same as were elected in October 1934:

Chairman: T. M. Redmond.

Vice-Chairmen:

Marquette: E. E. Pearce

Miss Elba L. Morse

Negaunee:

G. Sherman Collins Micheal F. DeFant.

mroneer r

Ishpeming:

R. J. Chenneour G. R. Jackson

Secretary

John Walsh Edward S. Bice

Directors for Three Years.

Walter F. Gries Marquette
R. S. Archibald Negaunee
J. E. Hayden Ishpeming
Dr. Paul Van Riper Champion
H. E. Perkins Big Bay

Directors for Two Years

Webster Pearce Marquette
W. W. Graff Negaunee
George Quinnell Marquette
Miss Stella Fuller Morgan Heights
C. J. Stakel North Lake

Directors for One Year.

Peter Trudell Negaunee

Mrs. Kiril Rosberg Ishpeming

Dr. J. E. Elzinga Marquette

Sam Cohodas Ishpeming

R. J. Jeffrey Gwinn

23.

1. Red Cross (Continued)

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 requestre of the County Board of Supervisors.

23.

# 1. Red Cross. (Continued)

Report of Nurse Marquette County Chapter American Red Cross.

Number of schools in County	37
Number of schools examined	37
Number of children	2447
Number of Children Found with Defects;	
Eyes	108
Teeth	2144
Tonsils	240
Skin	12
Ears	11
Orthopedic	2
	2517
Number of Corrections made by Parents;	
Eyes	1
Teeth	7
Tonsils	2 10
	10
Contagious Diseases Found:	6
Pink Eye	14
Scarlet Fever Impetigo	10
Chicken Pox	6
Chicken Fox	36
Number of Days Spent at Clinics.	
Men tal	2
Chest	
	$\frac{1}{3}$
Childred Cared for at Summer Dental Clinic.	
Number of Children	1011
Number having 2nd appointments	121
Number of Extractions	1637
Number of fillings	971
Number of Children and Adults taken to	
Hospitals, Schools, and Health Camp.	
Number of adults to hospitals	8
Children to School for Deaf - Flint	9
Children to School for Blind- Lansing	2
Michigan Children's Aid - Marquette	57
Children to Big Bay Health Camp	10
	86

# 1. Red Cross (Continued)

# Report of Nurse (Continued)

Investigations Made.	
Home Calls	964
For County Poor	199
	1163
Meetings Attended.	
Nurses' Conference - Escanaba	1
District Nurses' Meetings	8
Teacher's Institute	1
Advisory Nurses' Meetings	8
Red Cross Meeting	1
Achievement Day at Marquette	1
그 사람이 많은 아이들은 경우를 가게 가지하면 하면서 되는 것이 되었다. 그 사람들이 모든 것이 되었다.	

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	Republic	Gwinn	Total
Janua ry	339.54	259.07	25.74	11.89	636.24
February	439.08	271.22	18.94	21.51	750.75
March	302.73	184.97	33.24	50.15	571.09
April	561.04	202.54	9.20	95.13	867.91
May	587.68	189.47	52.99	54.48	884.62
June	387.62	199.06	9.18	60.49	656.35
July	406.56	145.59	30.22	143.94	726.31
August	357.89	114.77	42.49	88.62	603.77
September	421.11	143.02	18.83	64.20	648.16
October	376.29	56.35	21.45	54.09	508.18
November	299.86	98.55	25.18	70.32	493.91
December	275.55	94.13	47.34	67.75	484.77
	4754.95	1958.74	335.80	782.57	7832.06
No. of familie	s				
assisted	41	24	2	4	71
Average amount	of relief	per family			\$ 110.31

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 oppostunity permits.

23.

### c. INCAPACITATED EMPLOYEES.

During the year payments have continued to certain men whose years of service do not being 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 while 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:

DX	NATIONS TO INCAPAC	ITATED EMPLOYEES.
	Monthly	Total Amount
	Rate for	Paid During
	Year 1935.	1935.
Fred Fredette	20.00	240.00
Sam Metherell	14.40	172.80
August Samuelson	20.00	240.00
John Aho	14940	172.80
Bennett Andrew	16.00	192.00
Andrew Niemi	16.60	199.20
Edmund Durante	20.00	240.00
August Walline	20.00	240.00
Axel Erickson	20.00	240.00
Edward Van Langenhover	20.00	240.00
Nick Detoma	18.00	216.00
Edwin J. Goodman	20.00	240.00
Henry Maki	20.00	240.00
Donato Valenzio	20.00	240.00
Wm. Anderson	20.00	240.00
Fred Carlson	16.00	192.00
Joseph Thomas	75.00	750.00
		\$ 4294.80

	HOLMES MINE D	ONATIONS.
Peter Lesage	20.00	240.00
Carl Jarvinen	16.99	203.88
Bernt Wiggen	20.00	240.00
Martin Trondson	20.00	240.00
Evan Kinnish	20.00	240.00

23.

# c. INCAPACITATED EMPLOYEES. (Continued)

# DONATIONS TO WIDOWS.

		Monthly Rate for Year 1935	Total amount Paid during 1935.		
	John Makela Rose Bertucci	20.00	240.00 84.00	Died	7/11/1935
1	Wilhelmina Marjamaa	12.00	144.00	2202	.,,
	Henry Karkkainen	12.00	132.00	Died	11/22/1935
Mrs.	Mathilda Carlson	12.00	144.00		
			\$ 744.00		

Amount	of	Donations	paid t	to Inca	apacitate	i Employe	es during 1935	4294.80
Amount	of	Donations	paid	to Inca	apacitate	l Holmes	Mine Employees	1163.88
Amount	of	Donations	paid t	to Wide	ows during	1935		744.00
		T	otal Do	ona tior	ıs			. \$ 6202.68

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 15, 1935.

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
Dec.	1933	757.89
Dec.	1934	801.94
Dec.	1935	870.82

The Government's reports show that the index number for the cost of living in November 1935 as compared with 1914 is 135.98. This compares with 130.49 for November 1934.

From our own calculations from the prices furnished to us by the storekeepers here the cost of living in Ishpeming is lower than it is in some other places.

Our index figure for the cost of living in Ishpeming in November 1935 as compared with 1914 is 123.32.

The value of \$1.00 as compared with 1914 by the U.S. Tables in November 1935 was 73.5. Our living costs in Ishpeming for November 1935 give us the value of \$1.00 as compared with 1914 as 81.1.

### q. IMPROVEMENT WORK.

The work at the different locations was looked after by the superintendents andkept up closely to the usual standards.

23.

r. PRIZE PREMISES.

No prizes were offered for the season of 1935 but the home owners and occupants continued to interest themselves in good home conditions and the grounds of the Ishpeming homes showed their usual excellence.

In Munising the interest in the improvement of home grounds continued and prizes were offered for the season of 1935.

There were entries from all parts of the town and the improvement made during the last few years was very marked.

We assisted the Committee and the judges during the season.

s. COMMUNITY SERVICE WORK.

The Y.M.C.A. and Legion buildings served the city as a meeting place for civic activities, and these were supplemente d by the High School auditorium and gymnasium and with frequent meetings at the Mather Inn.

t. CLUBS.

One general meeting of The Cleveland-Cliffs Club was held, with 105 people present, and this included officials from the Furnace and Land Departments.

u. OUT DOOR SPORTS.

The Department helped with the Ski Tournament held in Ishpeming on February 22nd.

Improvements had been made on the hill and grounds arranged for the parking of cars. This made one of the best tournaments ever held.

The Association of the Business Men of the city have interested themselves in arranging for a winter carnival to be held in the week of the ski tournament in February 1936 and it seems possible to arouse a considerable enthusiasm for an event of this kind every year which would bring many people to the city.

23.

W. VARIOUS DEPARTMENTS.

Throughout the year we have cooperated with the different Departments, principally with accident cases and Workmen's Compensation, and with safety matters.

We visited one of the camps of the Land Department and have arranged for medical examination of a number of injured men at the Ishpeming Hospital, and have assisted Mr. Clancey in the preparation of cases coming up for hearing.

The Welfare and Compensation statements for the different Departments are on the following sheets.

23.

# w. Various Departments.

# LAND DEPARTMENT

# COMPARATIVE STATEMENT OF CENERAL WELFARE EXPENSE

# FOR THE YEARS 1932 to 1935, INCLUSIVE.

-	General Welfare Acct. No. 11. A-2 Prop. Charged by Treas.	1932 318.08	1933 323.01	1934 540.50	1935
10.5	11-F Miscellaneous Expense	523.47 841.55	246.51 569.52	240.00 780.50	240.00 917.60
-	Oonations				
	Negaunee Fire Department	10.00		20.00	10.00
	Munising Fire Department	10.00	10.00	10.00	10.00
	J.P. Development Bureau Christmes Presents to School	500.00	500.00	500.00	500.00
	Children- Logging Operations	25.00 545.00	28.18	22. <b>23</b> 532.23	19.82 529.82
	Compensation  A. Funeral Expense  d. Legan Expense  g. Medical Expense				
	h. Compensation i. Monthly Payments to Doctors	82,50	86.00	95.50	101.50
	Safety Work- Logging Operations				
4	Supplies		23.27	14.56	33.62
(	Compensation - Logging Operations.				
1	Medical & Hospital	3106.16	4103.12	5147.41	4626.05
(	Compensation Payments	5394.33	5620.88	4660.84	7831.50
(	Compensation Insurance Premium		7116.76	4916.77	
1	Percentage of Pay-Roll	.06475	.0891	04987	.0398

23.

w. VARIOUS DEPARTMENTS (Continued)

# LAKE SUPERIOR & ISHPEMING RAILROAD CO.,

# COMPARATIVE STATEMENT OF GENERAL WELFARE EXPENSE

# FOR THE YEARS 1932 to 1935 INCLUSIVE.

1932	1933	1934	1935
30.00	25.00	25.00	25.00
120.00	120.00	120.00	120.00
400.00	400.00	400.00	200.00
200.00	203.40	20.00	140.00
750.00	748.40	565.00	485.00
2207.88	2207.88	3479.28	3443.28
\$ 2957.88	2956.28	4044.28	39 28 , 28
3249.20	2548.30	2938.18	990.00
305.81	763.05	251.94	317.16
•0096	.0049	.0052	.0015
	\$0.00 120.00 400.00 200.00 750.00 2207.88 \$ 2957.88	\$0.00 25.00 120.00 120.00 400.00 400.00 200.00 203.40 750.00 748.40 \$2207.88 2207.88 \$2957.88 2956.28 \$3249.20 2548.30 305.81 763.05	\$0.00 25.00 25.00 120.00 120.00 120.00 400.00 400.00 400.00 200.00 203.40 20.00 750.00 748.40 565.00 2207.88 2207.88 3479.28 \$2957.88 2956.28 4044.28

11.

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 injured man is seen just as soon as possible following an accident and this has served to make the man realize the advantages of the Workmen's Compensation Law, and in this way it has been possible to readily secure the signature of the man to the compensation agreement.

All payments have been made promptly, the checks being delivered to the men here at the office, when they are able to come for them, or they are delivered to them at the hospitals or at their homes.

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 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:

### Linnea Erkkila.

Miss Erkkila was employed as a nurse at the Ishpeming Hospital until November 1934 when she claims that she was disabled as a result of an antityphoid innoculation administered some months before. She filed a claim for compensation through her attorneys, Derham & Derham. We requested her to submit to an examination by our doctors, which she refused to do. The Derhams withdrew from the case shortly before the first hearing, which was scheduled for January 28th, 1935. Miss Erkkila did not appear and the case was postponed; and it was again postponed on March 7th because of her non-appearance. The hearing was then set for March 20th and when she failed to appear for the third time the Deputy Commissioner permitted us to enter our defense and he later made an award in our favor.

### David Lampinen - Athens Mine.

Lampinen won a decision before a Deputy Commissioner on October 19, 1934, for a leg injury which he claims occurred on May 29th, 1930. We appealed from this decision and the case was heard before the Full Board on March 20, 1935. They reversed the decision of the Deputy Commissioner on the ground that Lampinen's claim had not been made within the statutory period.

11.

### a. Workmen's Compensation (Continued)

## William Merrila - Negaunee Mine, Acc. Rept. #605.

Claim was filed against the Fidelity & Casualty Company by Eli, 22, and Emil, 21, younger brothers of William Merrila, who was accidentally killed on March 20, 1934. Both claimed they were dependent upon him at the time of his death and, therefore, entitled to compensation. Their claim was denied by a Deputy Commissioner and they appealed, and following the hearing before the Full Board on March 20, 1935, compensation was again denied. Their attorney then tried to bring the case before the Supreme Court but writ of certiorari was denied, which closes the case.

#### Emil Linna - Cliffs Shaft Mine.

On October 17th, 1935, Linna filed an application for adjustment of claim in which he asked that he be allowed compensation, either total or partial, because of a hernia which he suffered on November 30, 1932, while employed at the Cliffs Shaft mine. Linna did have a hernia repaired at the Ishpeming Hospital on December 2, 1932, but we denied that it was due to an accidental injury. In a hearing before the Deputy Commissioner held on November 22, 1935, he received an award covering the period from December 2,1932, to March 1, 1933, this being the period he was disabled following his operation. Linna has appealed from this award. Following his return to work on March 1, 1933 he was employed at the Cliffs Shaft mine until April 30th, 1933, when the mine shut down. Following this he was employed on various relief projects until August 14, 1935, and he feels that he should have partial compensation during this period and total compensation after August 14th. No date has been set for the hearing before the Full Board.

#### Adolph Wheeler- Negaunee Mine, Acc. Rept. 584.

Wheeler was employed on the top tram at the Negaunee Mine. On March 29, 1930, some ore slid out of the chute and struck his left leg, tearing the ligaments of the knee. He was disabled until May 19, 1930, when he returned to work at his regular job and continued in our employ until October. He had suffered from myocarditis for some time and had been under a doctor's care. Because of his heart condition his physician recommended that he quit work and he decided to take his pension. He was put on the pension roll on January 1, 1931, and he died on February 12th. In October 1935 Mrs. Wheeler filed a claim for compen sation in which she states that her husband's death was attributable to the injury which he sustained on March 29, 1930. Her claim came on for hearing before a Deputy Commissioner on November 22, 1935 but Mrs. Wheeler did not appear and the case was continued. It will undoubtedly be scheduled for hearing early in 1936.

### Sidney Wales - Spies Virgil Mine, Acc. Rept. #144.

Wales was injured at the Spies Virgil mine on June 22, 1933. He was picking samples on a loaded railroad car when in some manner he fell from the car, landing in a sitting position on the ground some ten or twelve feet below. X-rays reveal no bony injury but since the accident Wales complained of pains in the back and hips and disability in one leg. He was paid compensation by

11.

a. Workmen's Compensation (Continued)

### Sidney Wales, (Continued)

The Fidelity and Casualty Company from the date of the accident to August 15, 1935, when they petitioned the Department of Labor and Industry for a stop order. The case was set for hearing on September 23rd, but was postponed due to the inability of two of the doctors to appear on that date. The case was heard at Crystal Falls, Michigan, on December 19th, 1935, the testimony on both sides being wholly medical. Wales had just returned from Ann Arbor on the day before the hearing, he having gone there on his own initiative, and as the defense was uncertain as to whether they would wish to take the deposition of the physician who examined him in Ann Arbor, the Deputy allowed him until January 2, 1936, to decide. If Wales decides to take the deposition of the Ann Arbor physician we will obtain the deposition of Dr. Spencer Braden of Ann Arbor, who made an examination of Wales at the Ishpeming Hospital in August 1935.

### Julius Hedstrom.

Hedstrom suffered a contusion of the chest at the Athens Mine on April 20, 1934, when the sling holding poles which were being hoisted broke and the rope caught him around the chest. He lost no time until January 10th, 1935, when he claims he was forced to give up work because of the pain in his chest. Hedstrom felt that the above injury aggravated an old injury which he received at the Gardner-Mackinaw mine on December 15, 1930, when he fractured several ribs; an opinion concurred in by Dr. MacIntyre, who is caring for him. Hedstrom returned to work as a dryman at the Gardner-Mackinaw mine in November 1935. While he was idle we rendered some assistance. He has made no formal demand for compensation and he probably will not do so.

11.

### a. Workmen's Compensation (Continued)

### FATALITIES:

The following fatalities occurred during 1935.

John E. Oja Age 42 Cliffs Shaft Mine, Acc. Rept. #1071. Occurred April 15, 1935.

Moving chunk with a bar. Tip of bar broke off and he lost his balance and fell into a raise. Compensation at \$18.00 a week

for 300 weeks Funeral Expense 5400.00 200.00 \$ 5600.00

Gabriel Saari Age 52 Cliffs Shaft Mine, Acc. Rept. #1073.

Occurred July 10, 1935.

Fall of ground.

Compensation at \$18.00 per week

for 300 weeks Funeral Expense 5400.00 200.00 \$ 5600.00

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

Mine Holmes Lloyd Maas			Date of	Date of
Mine	Name	Acct. Rept.	Accident	Final Payment
Holmes	Solomon Ristimaa	410	9/28/29	6/29/35
Lloyd	Allesandro Boz	755	12/10/29	9/10/35
Maas	Joseph Paris	447	12/14/29	9/13/35
Athens	Peter Koskela	324	3/25/30	12/24/35
Maas	August Kaheliin	458	1/5/31	Lump sum
	settlement made i	n July 1935.		

11.

a. Workmen's Compensation (Continued)

Following is a list of the more serious cases occurring during 1955 other than fatalities:

Mine and Report No.	Name	Nature of Injury	Compensation Paid.
Athens #336	Isaac Maki	Fracture of 3 trans- verse processes of spine	360.00 *
Maas			
#476	Alfred Laak	Loss 1/2 index finger.	315.00
Ma <b>as</b> #480	James Langdon	Fractured right patella.	50.40 *
Lloyd #775	Clarence LaFreneire	Fractured right femur.	288.00 *
Negaunee #609	Emanuel Thomas	Fractured both femurs.	235.20 *
Gardner-Mackinaw #68	Floyd Erickson	Compound comminuted fracture right fibula	483.00 *
Gardner-Mackinaw #69	Charles Poggi	Fracture of left tibia and fibula	444.00 *
Canisteo #17	Mike Hecemovich	Loss of 1/2 right index finger, 40% of middle finger, and 35% of ring finger.	306.28 *

<sup>\*</sup> Payments are still being made.

11.

# a. WORKMEN'S COMPENSATION (Continued)

# Compensation Payments including Medical Expense.

		Negaunee	Athens Ir.	Cliffs Pr.	Mesaba Cl.	Holman Cl.	Canisteo	Alexandria	
Year	C. C.I.Co.,	Mine Co.	Mng. Co.	& Light Co.	Ir.Mng.Co.	Mng. Co.	Cl.Mng.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						30702.58
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						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	10603.63	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
1932	52920.75	12137.00	5012.72	1398.25	1336.00	33.75	65.50	1074.00	73972.97
1933	23425.69	9605.70	5298.56	993.45	2180.61			614.00	42128.01
1934	26672.34	7573.97	8429.38	468.46	2468.61				45612.76
1935	34874.17	6854.34	5154.12	218.75	3778.56				50879.94
Totals \$	1168198.43	149169.86	96087.35	12057.95	68344.36	2131.39	2768.69	5382.63	1504140.66

a. WORKMEN'S COMPENSATION (Continued)

# ANNUAL STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY IST, 1935 to DECEMBER 31st, 1935.

Compensation paid on 1935 accidents	6668.58	
Compensation still pending	73080.32	
Cost of medical and hospital service	11292.25	
Total		91041.15
Less pending for years 1926 to 1934 inclusive Less medical paid on accidents occurring prior	58740.42	
to January 1, 1935	324.00	
Less medical paid on Insurance Company cases	65.00	
		59129.42
Cost of 1935 accidents		31911.73
Percentage of payrolls		.01675
Number of accidents on which compensation payments were made		39
Number of non-compensable accidents		2
Number of slight accidents which caused not over 1 day's los	t time	282

The above figures, and those on the large compensation sheet, cover only these accidents on which we carry our own risk.

Our experience under the insurance plan for Michigan properties is shown on another statement.

#### ANNUAL REPORT - YEAR 1935

STATEMENT OF COMPENSATION PAYMENTS FROM JANUARY 1, 1935 TO DECEMBER 31, 1935.

	Average No. of Employes	No. of Fatal Accs.	Non-	of -Fatal idents	Actual Comp. Paid in 1935	1922	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	Estimated Compen- sation still Pending	Actual Payments to Phy- sicians	Uas	inuing ses Injury
Cliffs Shaft Caboratory Chief of Police District Welfare	315 3 1 4	2	5	51	8012.48				1872.00				936.00			3207.90	1996.58	21446.64	1974.50 18.00 6.00 24.00	4	6
Employes Wood, Gwinn District Gardner-Mackinaw General Storchouse General Welfare Geological Department	137 69 2 1		2 2	7 14	624.00 981.00 1039.21								936.00	624.00		43.20	981.00 146.41	3948.00 117.52 936.00	837.75 417.00 9.00 3.50	1	1 2
Gwinn Office Holmes	1				1372.80	1 75			Barre !		468.00	904.80						3514.80	6,00		1
Ishpeming Office Lloyd Msas Mechanical Engineering Mining Engineering Purchasing Department	15 158 307 3 5		6 12	39 49		919.34		728.00 1932.00			<b>413.2</b> 8 666.00	2189.60	9 <b>3</b> 6.00 <b>2</b> 548.64			786.75	1039.45 1155.83	8739.40 6230.77	85.00 982.25 1931.75 15.00 32.50 21.50	2	6 7
Republic Safety Department Shipping Department Spies Virgil Steumenson	1 4 12				245.29 1512.00		56.00	728,00	728.00	245.29								879.67	3.00 22.50 137.75		2
Tilden Workmen's Compensation Saranac Investigation Miscellaneous	37 1 50		1	1 5	936.00											936.00		4068.00	224.50 9.00 2.50 4.50	1	
The Cliffs Power & Light Co.	35		1	1	6.00				13.5	1					4		6.00		212,75		
Negaunee Athens	235 201		1 3	36 39	5411.34 3903.62			129.60 799.86		808.86 83.20	1872.00 936.00	1200.88 936.00	249.60 235.76			915.20 435.80	235.20	14718.88	1443.00 1250.50		7 6
Total - Michigan Mines Hibbing Office Holman Brown Canisteo	1601 11 6 224	2		1 41	37358.63 1561.90	919.34	56.00	4317.46	2600.00	1137.35	4355,28	5231.28	5842.00	624.00	206.08	6238.45 724.71	631.11	69039.68 281.58	9673.75 69.00 34.50 1482.00	8	38
Hill Trumbull  Total - Minnesota Mines	247	1000	4	1 41	667.16 2229.06							667.16			206.08	724.71	631.11	3759.06 4040.64	33,00 1618,50	1	1
Total - All Mines	1848	2	1000	2 282	39587.69	919.34	56.00	4317.46	2600.00	1137.35	4355.28	5898.44	5842.00	624.00	206.08	6963.16	6668.58		11292.25	9	39

This statement covers only those accidents on which we carried our own risk

