

shares of outstanding stock of the Baltic Mining Co.; 99,699 of the 100,000 shares of the Copper Range Co.; 99,345 of the 100,000 shares of the Trimountain Mining Co.; 16,392 of the 42,443 shares (the remaining 26,051 shares being owned by the Copper Range Co.) of the stock of the Copper Range Railroad Co.; and 93,470 of the 100,000 shares of the Atlantic Mining Co. In addition the Copper Range Consolidated Co. owns \$870,000 face value of bonds of the Copper Range Railroad. Through the Copper Range Co., the Copper Range Consolidated Co. controls \$1,250,000 (one-half) of the stock of the Champion Copper Co., and through the Baltic and Trimountain companies controls \$190,000 of the stock of the Michigan Smelting Co., the former owning \$80,000 and the latter \$110,000 of the Smelting Co.'s stock.

Capital stock.—Authorized, \$40,000,000; outstanding, \$39,369,200; par, \$100. Dividends have been paid (quarterly, January 1) as follows: 1905, 3 per cent; 1906, 5 per cent; 1907, 8 per cent; 1908, 1909, 1910, and 1911, 4 per cent each; 1912, 2 per cent; January, April, and July, 1913, $\frac{3}{4}$ per cent each. Total dividends paid to December 31, 1912, \$12,902,249. No bonds.

Combined production of operating companies, years ended Dec. 31.

	1911	1912
Tons of rock stamped.....	1,779,072	1,784,402
Average yield refined copper.....	20.87	21.07
Copper produced..... pounds.....	37,130,292	37,584,647
Average price per pound..... cents.....	12.54	16.16
Average cost per pound..... do.....	9.74	10.51

Consolidated statement of operating companies, years ended Dec. 31.

	1911	1912
Sales of copper and interest.....	\$4,655,647	\$6,034,202
Mining expenses, including smelting, freight, marketing, etc.....	3,447,100	3,661,837
Houghton Co., taxes.....	1,208,547	2,422,364
Total income from mining.....	1,045,174	2,258,207
Other income.....	53,532	144,160
Net income.....	1,098,706	2,402,367
Deduct interest, taxes, and general expenses of Copper Range Consolidated Co.....	66,851	83,992
Deduct one-half of net mining profit of Champion Copper Co., which belongs to the St. Mary's Mineral Land Co.....	227,294	625,810
Balance of net income.....	804,561	1,692,566

Receipts and disbursements, year ended Dec. 31, 1912.

Receipts.	Amount.	Disbursements.	Amount.
Balance, previous year.....	\$315,532	Michigan Smelting Co.....	\$39,955
Baltic Co. dividends.....	697,613	Taxes.....	7,771
Trimountain Co. dividends.....	298,065	Interest.....	39,085
Copper Range Co. dividends.....	448,646	Other expenses.....	37,136
Received from various companies.....	488,282	Dividends.....	788,429
Dividend received in capital stock issued, but which remains unchanged.....	3,267	Notes payable.....	925,000
Notes payable.....	43,846	Accounts receivable.....	2,397
		Cash on hand Dec. 31.....	455,499
Total.....	2,265,271	Total.....	2,295,271

General balance sheet, Dec. 31.

	1911	1912
ASSETS.		
Treasury stock ¹	\$79,100	\$79,100
Stocks owned ²	37,865,400	37,890,100
Copper Range R. R. Co.:		
Bonds at par.....	870,000	870,000
Stock at par.....	1,639,200	1,639,200
Notes receivable.....	260,411	183,787
Accounts receivable.....	6,000	8,396
Copper Range electric plant.....	74,186	68,823
General exploration.....	672,331	672,331
Cash.....	315,874	455,499
Total.....	41,782,502	41,867,236
LIABILITIES.		
Capital stock.....	39,344,500	39,369,200
Notes payable.....	2,025,000	1,100,000
United Metals Selling Co.....	300,000	500,000
Deposits:		
Trimountain Mining Co.....	21,442	50,214
Copper Range Co.....	25,206	125,317
Atlantic Mining Co.....		47,200
Michigan Smelting Co.....	30,806	
Copper Range R. R. Co.....		20,677
Stock suspense.....		63
Accounts payable.....	18,183	62,039
Surplus.....	17,365	592,535
Total.....	41,782,502	41,867,236

¹ 791 shares of Copper Range Consolidated Co. held by the treasurer for exchange for the outstanding shares of the Baltic Mining Co. and the Copper Range Co.

² Consists of 99,659 shares of the Baltic Mining Co., 99,699 shares of the Copper Range Co., 99,345 shares of the Trimountain Mining Co., and 93,470 shares of Atlantic Mining Co.

Officers.—Wm. A. Paine, president; R. T. McKeever, vice president, Boston; F. W. Denton, vice president, Painesdale, Mich.; Frederic Stanwood, secretary and treasurer, Boston.

Directors.—The foregoing and J. H. Brooks; Charles J. Paine, jr., Boston; S. L. Smith, Detroit; F. McM. Stanton, New York; J. R. Turner, Jersey City.

COMPANIES CONTROLLED BY COPPER RANGE CONSOLIDATED CO.

ATLANTIC MINING CO.

Controlled by stock ownership. Incorporated July 18, 1872, in Michigan. Owns extensive copper mining and milling property in Houghton County, Mich.

Capital stock.—Authorized, \$2,500,000, of which \$1,180,000 has been paid in; par, \$25; paid in, \$11.80. Practically all owned by Copper Range Consolidated Co.

Receipts and expenditures, year ended December 31, 1912.—Rents, custom work, etc., at mine, \$121,250; other income, \$10,592; total, \$131,842. Deduct: Operating expenses, \$81,362; taxes, insurance, etc., \$9,374; total, \$90,736. Surplus for year, \$41,106; surplus forward, \$174,826; total surplus, \$215,932.

General balance sheet, December 31, 1912.—Indebtedness at mine, \$325; accounts payable, \$163; surplus, \$215,932; total, \$216,420. Contra: Cash in Boston, \$68,497; Michigan Smelting Co. stock, \$40,000; cash and supplies at mine, \$106,384; merchandise invoices at mine audited for payment, \$838; copper delivered, not paid for, \$701; total, \$216,420.

Officers.—W. A. Paine, president; Frederic Stanwood, secretary and treasurer. Boston.

Directors.—The foregoing and F. P. Son, J. H. Blodgett, Boston; Samuel L. Smith, Detroit; J. R. Stanton, J. W. Hardley, New York.

BALTIC MINING CO.

Controlled by stock ownership. Incorporated in December, 1897, in Michigan. Property, 800 acres in the Keweenaw copper belt, Houghton County, Mich. There are five shafts, numbered from south to north. Three shafts are producing, these being Nos. 2, 3, and 4 shafts, with a total depth of 2,257 to 2,526 feet, and 2,457

feet, respectively, and bottom levels of the twenty-second, twenty-sixth, and twenty-fifth, respectively. No. 1 shaft was abandoned at a depth of 219 feet. Production was begun in August, 1899. During 1912, 464 feet of shaft sinking, 10,547 feet of drifting, 679 feet of crosscutting, and 1,772 feet of raising was accomplished. Equipment consists of a compressor plant; boiler plant, with four 250-horsepower boilers; a 360-foot coal trestle of 5,000 tons capacity; electric light plant, machine shop, etc., and more than 100 dwellings; also a stamp mill at Redridge, on Lake Superior, with a capacity of 5,000 tons daily.

Capital stock.—Authorized and issued, \$2,500,000, of which \$2,491,475 is owned by the Copper Range Consolidated Co.; par, \$25. Dividends in recent years have been paid as follows: 1905, 69.4 per cent; 1906, 77.7 per cent; 1907, 55.5 per cent; 1908, 50 per cent; 1909 and 1910, 55.5 per cent each; 1911, 20 per cent; 1912, 28 per cent.

Statement of production, years ended Dec. 31.

	1911	1912
Tons of rock hoisted.....	760,473	705,281
Tons of rock stamped.....	696,795	652,433
Copper produced, pounds.....	15,370,449	13,373,961
Pounds of copper per ton stamped.....	22.06	20.50

Receipts and disbursements, years ended Dec. 31.

	1911	1912
Sales of copper, etc.....	\$1,927,036	\$2,165,350
Operating expenses and taxes.....	1,396,821	1,467,957
Mining profit.....	530,215	697,393
Surplus for year.....	530,215	697,393
Previous surplus.....	278,497	308,713
Dividends.....	500,000	700,000
Balance surplus.....	308,712	306,106

General balance sheet.—Copper Range Consolidated Co., \$174,638; indebtedness at mine, \$97,138; mine drafts in transit, \$91,277; accounts payable, \$7,527; surplus, \$306,106; total, \$676,686. Contra: Cash in Boston, \$4,455; copper on hand, \$295,836; United Metals Selling Co. copper delivered and not paid for, \$166,636; Michigan Smelting Co. stock, \$80,000; cash and supplies at mine, \$126,590; accounts receivable, \$2,980; insurance suspense, \$187; total, \$676,686.

Officers.—William A. Paine, president; Frederic Stanwood, secretary and treasurer, Boston. Directors: William A. Paine, J. H. Brooks, R. T. McKeever, Thomas S. Dee, Boston; S. L. Smith, Detroit.

CHAMPION COPPER CO.

Controlled by stock ownership jointly with St. Mary's Mineral Land Co. Incorporated October 14, 1899, in Michigan. Property, 1,240 acres near Copper Range and Trimountain, Houghton, Mich. Total depth of shafts: Shaft "B," 2,356 feet; "C," 2,334 feet; "D," 2,168 feet; "E," 2,388 feet. During 1912, 429 feet of shaft sinking, 9,343 feet of drifting, 1,209 feet of cross cutting, and 1,740 feet of raising was accomplished. Equipment includes hoists of 3,000 feet capacity, electric plant, stamp mill, mine buildings, water-supply system, and a village of 444 dwellings. The stamp mill at Freda, on Lake Superior, has four simple heads and two compound heads. Power for the mill is supplied by a 500-horsepower engine, with a 180-horsepower engine in reserve. The boiler house has four 200-horsepower boilers. The pump house has a 20,000,000 gallon pump; water taken from the lake through a 1,020-foot tunnel.

Capital stock.—Authorized and issued, \$2,500,000, of which one-half is owned by Copper Range Co. and one-half by St. Mary's Mineral Land Co.; par, \$25. Dividends have been paid as follows: 1903, 12 per cent; 1904, 8 per cent; 1905, 40 per cent; 1906, 48 per cent; 1907, 40 per cent; 1908, 20 per cent; 1909, 32 per cent; 1910, 36 per cent; 1911, 20 per cent; 1912, 44 per cent.

Statement of production, years ended Dec. 31.

	1911	1912
Tons of rock hoisted.....	787,416	804,944
Tons of rock stamped.....	734,392	765,306
Copper produced, pounds.....	15,639,426	17,225,508
Pounds of copper per ton stamped.....	21.30	22.51

Receipts and disbursements, years ended Dec. 31.

	1911	1912
Sales of copper, etc.....	\$1,962,730	\$2,785,411
Operating expenses and taxes.....	1,508,141	1,533,791
Mining profit.....	454,588	1,251,619
Surplus for year.....	454,588	1,251,619
Previous surplus.....	837,668	792,256
Dividends.....	500,000	1,100,000
Balance surplus.....	792,256	943,876

Assets and liabilities, Dec. 31.

	1911	1912
ASSETS.		
Cash.....	\$155,210	\$82,009
Copper on hand.....	406,713	502,868
United Metals Selling Co., copper delivered, not paid for.....	143,671	175,694
Michigan Smelting Co., stock.....	110,000	110,000
Accounts receivable.....	26,798	40,849
Cash and supplies at mine.....	149,632	203,292
Insurance suspense.....	854	697
Total.....	991,878	1,116,409
LIABILITIES.		
Indebtedness at mine.....	\$9,533	100,314
Mine draft in transit.....	89,103	62,199
Accounts payable.....	23,986	9,990
Surplus.....	792,256	943,876
Total.....	991,878	1,116,409

Officers.—William A. Paine, president; Charles J. Paine, jr., vice president; Frederic Stanwood, secretary and treasurer, Boston. Directors: William A. Paine, George P. Gardner, N. H. Stone, C. J. Paine, jr., Richard Olney, Boston; S. L. Smith, Detroit; F. W. Denton, Painesdale, Mich.

COPPER RANGE CO.

Controlled by stock ownership. Incorporated in 1889, in Michigan. Property, 9,360 acres south of Baltic mine and miscellaneous land comprising 441 acres with 4 miles frontage on Lake Superior. Company owns 50,000 shares of Champion Copper Co. stock and 28,051 shares of Copper Range Railroad Co. stock.

Capital stock.—Authorized and issued, \$2,500,000, of which the Copper Range Consolidated Co. owns \$2,492,475; par, \$25. Dividends in 1905, \$3 per share; 1906, \$6; 1907, \$4.50; 1908, \$3; 1909, \$6; 1910, \$4.50; 1911, \$3; 1912, \$4.50.

Receipts and expenditures, year ended December 31, 1912.—Balance from previous year, \$26,499; dividends received, \$550,000; interest received, \$3,415; other receipts, \$2,491; total, \$582,405. Expenditures: Taxes, \$3,649; general expenses at Houghton and Boston, \$1,556; timberlands, \$11; dividends, \$450,000; cash, \$127,188; total, \$582,405.

General balance sheet, Dec. 31.

	1911	1912
ASSETS.		
Lands on mineral range.....	\$1,287,658	\$1,287,658
Timberlands.....	92,336	92,348
Stocks owned.....	3,855,100	3,855,100
Cash.....	26,499	127,188
Total.....	5,261,593	5,362,294
LIABILITIES.		
Capital stock.....	2,300,000	2,300,000
Accounts payable.....	7,751	9,661
Profit and loss.....	2,953,842	3,052,633
Total.....	5,261,593	5,362,294

Officers.—William A. Paine, president; C. A. Snow, vice president; Frederic Stanwood, secretary and treasurer, Boston. *Directors:* The foregoing and R. T. McKeever, Boston; F. W. Denton, Painesdale, Mich.

TRIMOUNTAIN MINING CO.

Controlled by stock ownership. Incorporated 1899 in Michigan. Property, 1,120 acres lying south of Baltic and north of Champion in Houghton County, Mich. Total depth of shafts: No. 2, 2,742 feet; No. 3, 2,267 feet; No. 4, 2,191 feet. During 1912 263 feet of shaft sinking, 7,746 feet of drifting, 401 feet of crosscutting, and 1,770 feet of raising was accomplished. Equipment at each shaft includes a 2,500-horsepower hoist, with capacity for raising 6-ton skips from 1-mile depth. Mine buildings include machine shop, carpenter shop, smithy, and warehouse. There is a 35-drill air compressor at No. 2 shaft, with a condensing plant in a separate building adjoining. The power plant at No. 3 shaft includes a battery of water-tube boilers and a 4,500-foot air compressor, running 65 drills, 10 pumps, and sundry pneumatic machinery. The stamp mill occupies a 100-acre mill site at Beacon Hill, on Lake Superior, and has four compound heads, a 300-horsepower engine, and six 250-horsepower and two 200-horsepower boilers. The mill pump house has a 20,000,000-gallon pump.

Capital stock.—Authorized and issued \$2,500,000, of which \$2,000,000 paid in; par, \$25, of which \$20 is paid in. Copper Range Consolidated Co. owns 99,345 shares of the stock. Company paid \$300,000 in dividends in 1903, \$500,000 in 1908, \$150,000 in 1910, and \$300,000 in 1912.

Statement of production, years ended Dec. 31.

Year.	Copper produced.	Price received per pound.	Total cost per pound.
	Pounds.	Cents.	Cents.
1904.....	10,211,230	13.67	
1905.....	10,476,462	15.47	10.93
1906.....	9,507,933	18.85	11.40
1907.....	8,190,711	17.28	11.82
1908.....	6,034,908	13.39	12.50
1909.....	5,282,404	13.89	13.89
1910.....	5,694,808	12.74	12.17
1911.....	6,120,417	12.54	11.55
1912.....	6,980,713	16.16	11.73

Receipts and disbursements, years ended Dec. 31.

	1911	1912
Sales of copper, etc.....	\$768,595	\$1,132,718
Operating expenses and taxes.....	708,324	824,246
Mining profit.....	60,370	308,472
Surplus for year.....	60,370	308,472
Previous surplus.....	462,551	522,922
Dividends.....		300,000
Balance surplus.....	522,922	531,394

Assets and liabilities, December 31, 1912.—Indebtedness at mine, \$99,504; mine drafts in transit, \$40,681; accounts payable, \$4,299; surplus, \$531,394; total, \$675,879. Contra: Cash at Boston, \$50,925; copper on hand, \$215,555; United Metals Selling Co. copper delivered, not paid for, \$31,174; Michigan Smelting Co. stock, \$110,000; cash and supplies at mine, \$211,871; accounts receivable, \$55,954; insurance suspense, \$400; total, \$675,879.

Officers.—William A. Paine, president; Frederic Stanwood, secretary and treasurer, Boston. *Directors:* The foregoing and J. H. Brooks, Charles A. Snow, R. T. McKeever, Boston; Fred. W. Denton, Painesdale, Mich.; J. R. Stanton, New York.

FRANKLIN MINING CO.

Incorporated April 3, 1857, in Michigan. Owns copper mining property at Hancock, Houghton County, Mich., on the same lodes as the Calumet & Hecla mines and some of the oldest existing Lake Superior copper mines. Stamp mill located at Portage Lake. Owns over 90 per cent of stock of Rhode Island Copper Co. See appended statement.

Production and development, year 1912.—During the year 1,710,651 pounds of copper were produced and sold at 16.79 cents per pound. There were 184,057 tons of rock hoisted and 176,462 tons stamped. Development during the year totaled 5,134 feet.

Capital stock.—Authorized, \$5,000,000; par, \$25; outstanding December 31, 1912, 166,358 shares on which \$14.20 per share had been paid in. Assessment of \$2 per share was paid October 18, 1912. No dividends paid since January, 1894.

Treasurer's statement, December 31, 1912.—Cash and accounts receivable, \$138,340; fuel and supplies at mine, \$51,058; assessment, October 18, 1912, \$332,716; interest, \$5,964; copper sold, \$287,286; other receipts, \$1,043; total, \$816,407. Contra: Accounts payable, \$179,761; balance due from Stephen R. Dow & Co., \$81,394; balance due from Rhode Island Copper Co., \$99,819; mine liabilities omitted in 1911, \$661; mine expenses, \$365,026; smelter and general expenses, \$47,907; total, \$774,568. Surplus, December 31, 1912, \$41,839.

Assets and liabilities, Dec. 31.

[Exclusive of mine and plant.]

Assets.	1911	1912	Liabilities.	1911	1912
Cash and accounts receivable.....	\$133,168	\$63,142	Drafts outstanding.....	\$37,169	\$20,566
Copper sold.....	5,173	62,106	Notes payable.....	88,000	105,560
Assessment No. 2 unpaid.....		42,560	Accounts payable.....	53,793	67,540
Fuel.....	25,363	26,115			
Supplies.....	25,695	41,022			
Total.....	189,399	234,945	Total.....	179,762	193,166
			Balance of assets.....	9,637	41,839

Officers.—R. M. Edwards, president and general manager, Houghton, Mich.; A. L. Wyman, secretary, Henry Tolman, treasurer, Boston. *Directors:* R. M. Edwards, Houghton, Mich.; I. J. Sturgis, Boston; H. M. Howard, Brookline, Mass.; Henry Tolman, Newton, Mass.; C. G. Rice, S. J. Jennings.

HANCOCK CONSOLIDATED MINING CO.

Incorporated June 11, 1906, in Michigan. Property comprises 992 acres, including the old Hancock mine, the Condon tract, and land secured from St. Marys Mineral Land Co. The Hancock mine, between 1861 and 1885, had produced 2,854 tons of fine copper.

Capital stock. Authorized, \$5,000,000, of which \$2,800,000 in treasury; par, \$25, only part paid in.

Receipts and disbursements, year ended December 31, 1912.—Receipts from assessments, \$182,977; loan, \$50,000; total, \$232,977. Disbursements: Construction and development, \$217,765; taxes, \$31,658; interest, \$2,237; general expenses, \$15,883; total, \$267,543. Excess of disbursements, \$34,566.

General balance sheet, December 31.

Assets.	1911	1912	Liabilities.	1911	1912
Treasury stock.....	\$3,000,000	\$2,800,000	Capital stock.....	\$5,000,000	\$5,000,000
Real estate.....	594,698	594,698	Interest.....	14,314	12,077
Expense.....	244,685	312,226	Accounts and notes payable.....		
Construction and development.....	1,261,215	1,481,980	Refined copper.....	88,549	134,515
Cash.....	41,559	6,577		91,687	91,687
Supplies.....	24,211	19,666			
Assessments.....	6,260	23,283			
Accounts receivable.....	1,922	2,849			
Total.....	5,197,551	5,241,279	Total.....	5,197,551	5,241,279

Officers: J. D. Cuddihy, president; Thomas Hoatson, vice president; J. H. Hick, secretary and treasurer; John L. Harris, general manager. Directors: J. D. Cuddihy, Thomas Hoatson, James Hoatson, S. B. Harris, Allen F. Rees, Frederic W. Nichols.

HOUGHTON COPPER CO.

Controlled by stock ownership. Incorporated in 1909, in Michigan. Property comprises 160 acres, located in the Houghton district, Mich., on the Superior lode. Development work is being prosecuted by shaft sinking and drifting. Total development to January 1, 1913, about 2,946 feet.

Capital stock.—Authorized, \$2,500,000; par, \$25; issued, 67,000 shares, on which \$6 per share paid up. The St. Marys Mineral Land Co. owns 37,222 shares of the stock.

Income account, year ended December 31, 1912.—Receipts: Assessment No. 1, \$63,255; miscellaneous, \$219; total, \$63,474. Expenditures: Mine expenses, \$42,164; taxes, \$2,732; interest and insurance, \$998; Boston office expenses, \$3,507; total, \$49,400. Surplus, \$14,074.

Assets and liabilities, December 31, 1912.—Assets: Cash, \$1,700; supplies, \$4,630; accounts receivable, \$57; total, \$6,387. Liabilities: Accounts payable at Boston, \$4,000; accounts payable at mine, \$5,741; total, \$9,741. Excess of liabilities, \$3,353.

Officers: Charles J. Paine, jr., president; George P. Gardner, vice president; A. E. Coe, secretary and treasurer, Boston; L. L. Hubbard, general manager, Houghton, Mich. Directors: George P. Gardner, Charles J. Paine, jr., N. H. Stone, Boston; James P. Edwards, F. W. Nichols, Houghton, Mich.

LAKE COPPER CO.

Incorporated November 28, 1905, in Michigan. Property consists of 2,010 acres, adjoining the Adventure, in Ontonagon County, Mich., including 1,150 acres of mineral land, 680 acres of timber lands, and 180 acres of cutover lands. Company purchased 20 acres immediately east of the shaft from the St. Marys Mineral Land Co., to provide room for a surface plant, the purchase carrying with it mineral rights to a depth of 100 feet. The bulk of the mineral property formerly was a part of the Belt mine, first opened in 1848, and taken over in 1882 by the Belt Mines Co. (Ltd.).

During fiscal year 1911-12, 12,653 feet of development work was done, compared with 9,831 feet in previous year. Production was started in April, 1912, with monthly average of about 115,000 pounds copper. Mill recovery shows about 26 pounds of mineral per ton.

Capital stock.—Authorized and outstanding, 100,000 shares (\$2,500,000); par, \$25, of which \$3 per share (\$300,000) paid in.

Receipts and disbursements, year ended April 30, 1912.—Receipts: Cash on hand May 1, 1911, \$326,952; sale of copper, \$39,338; miscellaneous receipts, \$6,070; interest on bank deposits, \$9,151; total receipts, \$381,511. Expenditures: Expenditures at mine, \$311,076; all other expenses, \$10,972; total expenditures, \$322,048. Cash on hand April 30, 1912, \$59,463.

Assets and liabilities, April 30, 1912.—Assets: Cash in bank, \$59,463; supplies at mine, \$17,959; copper on hand, \$30,380; total, \$107,802. Liabilities: Accounts payable (current indebtedness at mine), \$20,289. Balance of assets, \$87,513.

Officers.—W. A. Paine, president, Boston, Mass.; John H. Rice, vice president, Houghton, Mich.; R. H. Gross, secretary and treasurer, Boston, Mass.; C. K. Hitchcock, jr., manager, Lake Mine, Mich. Directors: John H. Rice, R. C. Pryor, Houghton, Mich.; W. A. Paine, R. H. Gross, G. L. Stone, W. F. Fitzgerald, R. T. McKeever, Boston, Mass.

MASS CONSOLIDATED MINING CO.

Incorporated in 1899, in Michigan, to operate copper properties of about 3,000 acres in mass, Ontonagon County, Mich. The mine is stated to be notably rich in mass copper and its physical equipment is adequate. There are three shafts with respective depths of 1,757 feet, 1,857 feet, and 1,100 feet. The power plant between A and B shafts has a double hoist, a 50-drill air compressor, a dynamo for electric light, and two 250-horsepower boilers.

The stamp mill, situated on Keweenaw Bay, on an arm of Lake Superior, 34 miles northeast of the mine, is equipped with two heads of about 1,200 tons capacity. The boiler house has two 200-horsepower and one 350-horsepower boilers. The pump house has a 16,000,000-gallon pump, fed from a 12-foot by 30-foot well, connected with a tunnel running 300 feet under the bed of the bay to the intake.

In 1911 the company completed the purchase of the Evergreen Bluff Mining Co.'s lands, comprising about 2,000 acres, and which had divided the southern half of the Mass property.

A special meeting of the stockholders was held in 1912, and it was voted to sell a portion of the company's lands to a new company, the stock of which was to be offered to stockholders of the Mass company, but condition of the stock market has been such that no attempt has been made so far to carry out the plan.

Capital stock.—Authorized, \$2,500,000; paid in, \$2,300,000; par, \$25. No bonds. No dividends.

Production, years ended Dec. 31.

Year.	Refined copper.	Average price received.	Pounds copper per ton of rock.	Number feet new openings.
	<i>Pounds.</i>	<i>Cents.</i>		
1906.....	2,106,739	19.52	11.34	9,834
1907.....	2,078,677	18.26	10.16	3,354
1908.....	1,766,930	13.50	10.32	1,085
1909.....	1,723,436	13.613	12.36	2,464
1910.....	1,321,885	12.503	14.59	4,335
1911.....	1,326,898	12.76	17.58	7,166
1912.....	2,045,006	17.02	15.39	4,892

Income account, years ended Dec. 31.

Year.	Total receipts.	Expenses and taxes.	Construction, exploring and real estate.	Total expended.	Deficit for year.
1906.....	\$416,631	\$477,941	\$42,387	\$520,328	\$103,697
1907.....	388,171	433,280	14,265	447,545	59,374
1908.....	240,520	261,433	25,978	287,411	46,891
1909.....	243,749	271,361	17,393	288,754	45,005
1910.....	365,749	186,289	49,390	235,679	sur. 130,070
1911.....	494,834	211,002	253,122	464,124	sur. 30,710
1912.....	349,355	187,798	182,919	370,717	21,362

Assets and liabilities, Dec. 31.

Assets.	1911	1912	Liabilities.	1911	1912
Cash on hand.....	\$13,736	\$17,429	Notes payable.....	\$30,400	\$65,400
Accounts receivable.....	15,299	18,239	Accounts payable.....	30,139	47,026
Assessments.....	16,683		Pay roll.....	10,888	16,758
Supplies at mine.....	17,649	27,820	Evergreen Trust.....		1,634
Supplies at mill.....	18,681	17,383	Compensation fund.....		1,371
Copper on hand.....	20,303	61,160	Amount due certificate holders from sale of unpaid assets.....	219	495
			Total.....	71,646	132,684
			Surplus of assets.....	30,710	9,347
Total.....	102,356	142,031	Total.....	102,356	142,031

Officers: J. W. Linnell, jr., president; T. O. Nicholson, vice president; W. A. Bancroft, secretary and treasurer. Directors: The foregoing and D. A. Carrick, James B. Hill, William F. Fitzgerald, F. J. Schultheis, F. L. Maguire, and E. W. Walker.

MOHAWK MINING CO.

Incorporated in November, 1898, in Michigan. Company owns a tract of 800 acres in sections 27, 28, 33, 34, township 57 north, range 32 west, in Keweenaw County, 4 miles northeast of the property of the Calumet & Hecla Mining Co. Company has a mill site of 140 acres, with a frontage of three-fourths of a mile on Traverse Bay, Lake Superior, about one-fourth of a mile from mouth of the Tobacco River. The mineral lands aggregate 800 acres, forming an irregular tract with its axis on the strike of the lode. Development is by five shafts and underground openings. The Mohawk mill at Gay has four stamps, each head with a daily capacity of 500 tons, working on the rock of the Kearsarge lode. The equipment includes the most modern machinery, also a town named in honor of Joseph E. Gay, with dwellings for employees, streets, water mains, hydrants, etc. An 1,800-foot spur to a connection with the Traverse Bay Railroad was constructed in 1909, also a dam to furnish sufficient water for the needs of the plant. Development work in 1905 showed total openings of 10,812 feet; 1906, 13,314 feet; 1907, 11,043 feet; 1908, 12,669 feet; 1909, 13,691 feet; 1910, 14,978 feet; 1911, 15,459 feet; 1912 (634 feet shaft sinking and 14,768 feet drifting and crosscutting), 15,402 feet.

Capital stock, \$2,500,000; par, \$25.—Dividends have been paid as follows: 1906, \$5 per share; 1907, \$9; 1908, \$2.50; 1909, \$3; 1910, \$2; 1911, \$1.75; 1912, \$3.50; February 1, 1913, \$3; payments, semiannually, F & A 1.

Operating statistics, years ended Dec. 31.

Year.	Refined copper.	Total cost, including construction, per pound.	Price received per pound.
	Pounds.	Cents.	Cents.
1906.....	9,352,252	11.54	19.60
1907.....	10,107,266	11.747	15.66
1908.....	10,295,881	10.755	13.43
1909.....	11,248,474	11.207	13.20
1910.....	11,412,066	10.965	11.44
1911.....	12,091,056	10.399	12.63
1912.....	11,993,598	10.61	16.08

Income account, years ended Dec. 31.

Year.	Gross receipts.	Expenses.	Mining profit.	Construction charges.	Net profit.	Dividends.	Surplus for year.
1907.....	\$1,585,787	\$1,081,029	\$504,758	\$103,353	\$398,405	\$900,000	\$547,822
1908.....	1,384,165	1,085,590	298,575	21,796	276,779	250,000	584,600
1909.....	1,484,292	1,248,048	236,244	12,553	223,691	300,000	508,291
1910.....	1,493,816	1,251,365	242,451	54,368	188,083	200,000	496,374
1911.....	1,527,108	1,226,522	300,786	31,280	269,506	175,000	590,881
1912.....	1,929,428	1,264,177	665,251	8,815	656,436	350,000	\$97,316

Assets and liabilities, Dec. 31.

Assets.	1911	1912	Liabilities.	1911	1912
Cash in bank.....	\$16,099	\$14,676	Indebtedness at mine.....	\$158,449	\$161,403
Cash in trust company.....	150,000	275,000	Accounts payable.....	14,555	19,141
Copper on hand, sold.....	432,536	599,947	Total.....	173,004	180,544
Cash and supplies at mine.....	85,250	108,237	Excess of assets over liabilities.....	590,881	\$97,316
Stock in Michigan Smelting Co.....	80,000	80,000			
Total.....	763,885	1,077,860			

Officers: Joseph E. Gay, president; J. R. Stanton, treasurer; J. W. Hardley, secretary, New York. Directors: The foregoing and W. A. Paine, Boston, Mass.; Fred Smith, Kearsarge, Mich.

QUINCY MINING CO.

Incorporated originally by special charter of the State of Michigan March 30, 1848. Charter expired March 6, 1878, when the company was reorganized under the existing mining law of Michigan. Its business is that of copper mining and smelting, and it owns and works one of the richest copper-mine properties in the Portage Lake district, Houghton County, upper Michigan. Purchased the mine and mill location of the Franklin Mine Co., adjoining the company's property, in 1908.

In 1910 the company purchased 800 acres of mineral land from the St. Mary's Canal Mineral Land Co., immediately adjoining the company's present territory and carrying the extensions of the Powabic vein. The cost of the property was \$600,000.

The stamp mills, two in number, are at Mason, on Torch Lake, 6 miles from the mine, and have a combined stamping capacity of about 5,000 tons daily. The power house at the mills is equipped with four 250-horsepower water-tube boilers. The pumps include one 20,000,000-gallon pump, and three pumps with a combined capacity of 21,000,000 gallons daily. Water is taken from a 100-foot tunnel driven under the bed of the lake. A 440-foot tunnel, carrying steam and water pipes, connects the mills, boiler houses, and pump houses. The smelter is situated one-half mile from the mine, on the shore of Portage Lake. The works, in addition to treating the Quincy produce, do a custom business.

Capital stock.—Authorized, \$3,750,000; outstanding, \$2,750,000; par, \$25. Dividends have been paid in recent years as follows: 1900, 36 per cent; 1901, 36 per cent; 1902, 28 per cent; 1903, 22 per cent; 1904, 20 per cent; 1905, 24 per cent; 1906, 50 per cent; 1907, 54 per cent; 1908, 18 per cent; 1909, 16 per cent; 1910, 20 per cent; 1911, 16 per cent; 1912, 20 per cent; March, 1913, 6 per cent; June, 1913, 5 per cent; payments quarterly. Total dividends paid to January 1, 1913, \$20,430,000.

Production years ended Dec. 31.

Year.	Refined copper.	Year.	Refined copper.
	Pounds.		Pounds.
1904.....	18,343,160	1909.....	22,511,084
1905.....	18,827,557	1910.....	22,517,014
1906.....	16,194,838	1911.....	22,252,943
1907.....	19,793,058	1912.....	20,634,800
1908.....	20,600,341		

Income account, years ended Dec. 31.

Year.	Gross income.	Operating expenses, etc.	Net profit.	Other income.	Previous surplus.	Total surplus.	Dividends.	Balance.
1905.....	\$2,981,121	\$1,905,523	\$1,075,198	\$29,285	\$946,841	\$2,051,325	\$600,000	\$1,451,325
1906.....	3,099,011	1,993,437	1,135,574	27,411	1,250,000	1,250,000	1,250,000	1,250,000
1907.....	3,717,501	2,442,359	1,275,152	21,520	1,220,532	2,517,204	1,485,000	1,032,204
1908.....	2,796,230	2,358,464	437,766	16,394	1,032,204	1,485,364	495,000	991,364
1909.....	3,034,810	2,478,716	556,094	12,755	991,364	1,560,214	440,000	1,120,214
1910.....	2,974,086	2,360,125	613,961	28,732	1,120,215	1,762,908	550,000	1,012,908
1911.....	2,854,804	2,355,067	489,737	17,860	1,012,907	1,570,504	440,000	1,972,499
1912.....	3,381,587	2,433,052	948,535	15,245	972,499	1,933,278	550,000	1,233,278

¹ After deducting \$150,000 in 1910, \$158,005 in 1911, and \$150,000 in 1912, on account of land purchased from St. Mary's Canal Mineral Land Co.

Assets and liabilities, December 31, 1912, exclusive of real estate, mine plant, and supplies in use.—Cash, copper, and investments, \$980,613; accounts receivable, \$212,030; total, \$1,192,643. Contra: Mine drafts unpaid, \$3,893; accounts payable in New York, \$17,325; accounts payable at mine, \$236,461; accounts payable at smelting works, \$9,318; total, \$266,997; leaving \$925,646; add supplies, etc., and accounts receivable at mine, \$281,083; supplies, etc., and accounts receivable at smelting works, \$26,549; balance of assets, \$1,233,278.

Officers.—William R. Todd, president; W. Parsons Todd, vice president; W. A. O. Paul, secretary and treasurer. Directors: W. Parsons Todd, W. R. Todd, Walter P. Bliss, Isaac H. Meserve, Charles J. Devereaux, Otto Kirchner (of Michigan), Jas. L. Bishop, W. M. Belcher, John M. Longyear.

WINONA COPPER CO.

Incorporated November 3, 1898, in Michigan; owns an extensive mineral property of about 1,500 acres in Houghton County, Mich.; also timber rights to 1,768 acres, situated about 5 miles from the mine; also owns the entire capital stock of the King Philip Copper Co. The mine has two working shafts. Company has electric pumps and runs about 10 drills, and also has a 2-head stamp mill. Development, year ended December 31, 1912, shows drifting, 3,060 feet; crosscuts, 114 feet.

Production, year ended December 31, 1912.—Rock stamped, 181,148 tons; product of mineral, 3,586,520 pounds; product of refined copper, 2,307,237 pounds; yield of mineral per ton of rock stamped, 19.79 pounds; yield of copper per ton of rock stamped, 12.7367 pounds; price received per pound for copper, 16.306 cents.

Capital stock.—Authorized, \$5,000,000; 166,667 shares issued; par, \$25, of which paid up, \$23 per share. Of the stock, 66,666 shares were issued in exchange for King Philip Copper Co. stock on the basis of two Winona shares for three of King Phillip. No dividends.

Income account, years ended Dec. 31.

Year.	Sales of copper.	Other income.	Total income.	Mine expenses.	Smelting and marketing.	General expenses and taxes.	Deficit for year.
1906.....	\$63,326	\$1,175	\$64,501	\$276,140	\$3,350	\$13,501	\$228,490
1907.....	219,332	3,086	222,418	383,375	15,419	13,824	190,200
1908.....	1,456	14,979	16,435	196,982	1,038	13,106	196,147
1909.....	.....	263,774	263,774	100,308	156,500	14,041	294,925
1910.....	.....	203,157	203,157	98,379	138,000	17,598	50,820
1911.....	159,890	315,906	475,796	278,547	38,638	11,797	2146,814
1912.....	376,220	18,094	394,314	429,540	24,422	25,132	84,780

¹ Advanced to stamp mill.

² Surplus.

³ Includes \$185,421 from assessments.

Assets and liabilities, Dec. 31.

	1911	1912
ASSETS.		
Cash in bank.....	\$45,186	\$27,881
Accounts receivable.....	3,275	4,224
Supplies and cash at mine.....	81,125	81,856
Copper on hand.....	65,289	63,718
Total.....	194,875	177,679
LIABILITIES.		
Accounts payable.....	48,061	115,645
Excess of assets.....	146,814	62,034
Total.....	194,875	177,679

Officers.—Charles J. Paine, jr., president; Nathaniel H. Stone, vice president, E. B. O'Connor, secretary and treasurer, Boston. Directors: William A. Paine; James H. Seager, Charles J. Paine, George P. Gardner, Walter Hunnewell, Nathaniel H. Stone, Charles J. Paine, jr.

KING PHILIP COPPER CO.

Controlled by stock ownership. Incorporated November 13, 1905, in Michigan. Property, 1,040 acres, in Houghton and Ontonagon Counties, Mich. The mine is opened by two shafts on the Winona lode, which averages about 20 feet in width. The shafts are equipped with 1,200-foot hoists. Power house contains a battery of two 200 horsepower boilers, 6 drill and 15 drill air compressors, and a powerful 3-stage air compressor. Company recently erected a stamp mill in conjunction with the Winona Copper Co.

Capital stock.—Authorized and issued, \$2,500,000; par, \$25, of which \$13 has been paid in. All owned by Winona Copper Co.

Officers.—Charles J. Paine, jr., president; George P. Gardner, vice president; Edward B. O'Connor, secretary and treasurer. Directors: E. V. R. Thayer, George P. Gardner, Walter Hunnewell, Rufus R. Goodell, Nathaniel H. Stone, Charles J. Paine, jr.

WOLVERINE COPPER MINING CO.

Incorporated in 1890, in Michigan. Property consists of 320 acres, of which 280 acres are freehold and 40 acres adjoining mineral rights, in Houghton County, Mich., the property carrying 3,100 feet of the strike of the Kearsarge amygdaloidal bed, on which the mine is opened. The Kearsarge bed averages about 17 feet in width on the Wolverine property.

Ore is blocked out for about six years' production, and an estimate of 20 to 25 years' life is given the mine. About 20 power drills are employed in stoping and 10 in opening work. There are 5 Knowles electric pumps in use, and trams are used for underground rock handling.

The principal mine buildings are at No. 4 shaft, where there are 20-drill and 22-drill air compressors. The company owns a large number of dwellings.

The mill, completed in 1902, is situated 13 miles from the mine, near the mouth of Tobacco River, on Traverse Bay, Lake Superior, adjoining the Mohawk, both mills being served by a single pump, and managed by a joint superintendent. Capacity (two heads) is about 1,100 tons per day. A complete machine shop, and a boiler house containing a battery of 200 horsepower water-tube boilers have been built. The pump house, which is owned and operated jointly by the Wolverine and Mohawk, has a 20,000,000 gallon Snow pump, and also an 8,000,000 gallon Nordberg pump, which is used as an auxiliary. Rock is transported to the mill by the Mohawk & Traverse Bay Railroad.

Capital stock.—Authorized, \$1,500,000; par, \$25, on which \$13 per share has been paid. Dividends have been paid A and O 1, as follows: 1898, \$1; 1899, \$3.50; 1900, 1901, and 1902, \$4 each; 1903, \$5.50; 1904, \$7.50; 1905, \$11; 1906, \$17; 1907, \$17.50; 1908, 1909, and 1910, \$10 each; 1911, \$9; 1912, \$10; April, 1913, \$5.

Development work, etc., years ended June 30.

Year.	Sinking shafts.	Drifting and cross-cutting.	Total openings.	Stoping.
	<i>Fect.</i>	<i>Fect.</i>	<i>Fect.</i>	<i>Fathoms.</i>
1906.....	358	4,419	4,778	23,252
1907.....	450	4,993	5,443	23,175
1908.....	414	4,841	5,255	23,817
1909.....	321	4,631	4,951	23,869
1910.....	191	4,948	5,139	25,440
1911.....	436	4,718	5,154	26,061
1912.....	541	4,293	4,834	25,845

Operations, years ended June 30.

Year.	Production of refined copper.	Yield of copper per ton of rock.	Cost per ton of rock.	
			Hoist.	Stamp.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>\$</i>	<i>\$</i>
1906.....	9,681,706	28.32	1.49	1.54
1907.....	9,372,982	27.24	1.58	1.65
1908.....	9,356,123	26.82	1.62	1.71
1909.....	9,985,748	26.75	1.52	1.60
1910.....	9,757,101	24.96	1.55	1.61
1911.....	9,617,168	24.75	1.59	1.64
1912.....	9,408,960	23.45	1.53	1.58

Income account, years ended June 30.

	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12
Proceeds of copper.....	\$2,002,379	\$1,231,223	\$1,334,056	\$1,291,528	\$1,209,747	\$1,327,031
Interest.....	15,198	13,221	8,326	2,671	1,271	.....
Total receipts.....	2,017,577	1,244,444	1,342,382	1,294,199	1,211,018	1,327,031
Expenses.....	609,037	685,042	692,337	720,394	723,123	713,850
Construction.....	42,137	.....	44,904	2,939	2,191	.....
Dividends.....	1,140,000	750,000	600,000	600,000	600,000	540,000
Balance.....	¹ 166,403	² 190,598	15,141	² 29,134	² 114,296	173,181
Previous surplus.....	989,186	1,002,227	811,629	816,769	787,635	673,339
Total surplus.....	1,155,589	811,629	816,770	787,635	673,339	746,520

¹ Surplus.

² Deficit.

Assets and liabilities, June 30, 1912.—Assets: Cash in bank, \$10,207; deposit in trust company, \$250,000; copper bills and copper on hand, \$451,121; cash and supplies at mine, \$44,358; stock in Michigan Smelting Co., \$80,000; accounts receivable, \$4,642; total, \$840,328. Liabilities: Indebtedness at mine, \$67,632; accounts payable, \$26,176; total, \$93,808. Excess of assets, \$746,520.

Officers and directors.—Joseph E. Gay, president; J. R. Stanton, treasurer; J. W. Hardley, secretary; E. B. Hinsdale, Samuel L. Smith.

APPENDIX III.

CAPITAL PAID IN, DIVIDENDS, AND COST OF PRODUCTION OF LAKE SUPERIOR MINES.

[From Report of Strike Investigation by the Committee of the Copper Country Commercial Club of Michigan, 1913.]

COST OF PRODUCTION.

The following tables (as far as the committee has been able to complete them) show in detail the average copper contents per ton of rock, of the rock mined by the various companies during the year 1912, the number of pounds of refined copper produced in 1912, the amount of money paid out in wages to employees, and the average cost per pound of copper produced:

Company.	Average copper contents per ton of rock mined.	Pounds of refined copper produced.	Amount paid in wages.	Cost of production per pound of copper.
	<i>Pounds.</i>			<i>Cents.</i>
Mohawk Mining Co.....	13.81	11,995,598	\$765,820.06	10.61
Ahmeek Mining Co.....	25.229	16,455,769	543,817.37	7.85
Allouez Mining Co.....	16.56	5,525,455	163,615.68	13.52
Osceola Consolidated Mining Co.....				10.36
Osceola mine.....	12.8	1,479,642	135,097.27	.....
North Kearsarge mine.....	12.8	8,611,720	468,226.13	.....
South Kearsarge mine.....	18.2	8,322,025	255,585.54	.....
Stamp mill.....			142,659.68	.....
Wolverine Copper Mining Co.....	21.86	9,120,485	378,875.75	8.665
Centennial Copper Mining Co.....	16.36	1,742,338	60,591.70	13.46
Calumet & Hecla Mining Co.....	24.18	67,856,429	3,983,013.05	9.86
Tamarack Mining Co.....	18.76	7,908,745	633,842.19	13.15
La Salle Copper Co.....			3,614.71	(1)
Laurium Mining Co.....			27,183.49	(1)
Franklin Mining Co.....	9.8	1,710,651	219,724.95	.....
Oneco Copper Mining Co.....			21,501.76	(1)
Hancock Consolidated Mining Co.....			141,123.34	(1)
Quincy Mining Co.....	15.73	20,634,800	1,436,781.90	11.48
Isle Royale Copper Co.....	15.43	8,186,957	555,205.55	11.89
Superior Copper Co.....	22.76	3,921,974	164,220.57	12.75
Copper Range Consolidated Co.....			2,208,537.62	.....
Baltic Mining Co.....	20.50	13,373,961	.....	.....
Trimountain Mining Co.....	19.04	6,980,713	.....	.....
Champion Copper Co.....	22.50	17,225,508	.....	.....
Winona Copper Co.....	12.73	2,307,237	297,371.03	.....
Total.....		213,360,007	12,606,469.34	.....

¹ No copper production during 1912; exploratory and development work only.

The average price of copper per pound over a period of 20 years, from 1891 to 1910, as given by Stevens's Copper Handbook, is 13.768 cents per pound.

DIVIDENDS AND ASSESSMENTS OF LAKE SUPERIOR MINES.

Of the above mining companies in the district seven paid dividends during the year 1912, namely: Mohawk Mining Co., Ahmeek Mining Co., Wolverine Copper Mining Co., Calumet & Hecla Mining Co., Osceola Consolidated Mining Co., Quincy Mining Co., and Copper Range Consolidated Mining Co. The Isle Royale Copper Co. in 1913 paid one dividend of \$1 per share, being the first dividend since its operation, which commenced previous to 1860.

In view of the claim that has been made that the Lake Superior copper district is the richest in the world, the following table, taken from Stevens's Copper Handbook, will be of interest. The table lists something over 70 mining companies that have operated in the Lake Superior copper district from 1849 to 1910. Of the entire

list only 14 mines have paid back the money invested. If the Calumet & Hecla Mining Co. is taken from the list, the table will show that in all those years the copper industry has just about paid back the money invested in it:

Company.	Assessments.	1819 1910 dividends.	Debit balance.	Credit balance.
Adventure Consolidated.....	\$2,450,000		\$2,450,000	
Ahmeek.....	850,000		850,000	
Albany & Boston.....	810,000		810,000	
Allouez.....	2,225,000		2,225,000	
Atlantic.....	1,180,000	3,990,000	190,000	
Aradian.....	1,800,000		1,800,000	
Arnold.....	810,000		810,000	
Ashbed.....	10,000		10,000	
Aztec.....	150,000		150,000	
Baltic.....	1,800,000	6,550,000		\$1,750,000
Belt.....	1,300,000		1,300,000	
Bohemian.....	150,000		150,000	
Caledonia.....	110,000		110,000	
Calumet & Hecla.....	1,200,000	112,500,000		111,300,000
Centennial (Old).....	1,135,000		1,135,000	
Centennial (New).....	1,755,000		1,755,000	
Central.....	100,000	2,130,000		2,030,000
Champion.....	2,500,000	6,600,000		1,100,000
Cliff (Old).....	111,000	2,518,620		2,407,620
Conglomerate.....	1,500,000		1,300,000	
Copper Falls.....	1,000,000	100,000	900,000	
Copper Range Consolidated.....	2,300,000	10,756,526		8,456,526
Delaware.....	2,000,000		2,000,000	
Elna River.....	1,200,000		1,200,000	
Evergreen Bluff.....	225,000		225,000	
Flint Steel.....	264,000		264,000	
Forrest.....	180,000		180,000	
Franklin.....	1,020,000	1,240,000		220,000
Hancock.....	1,800,000		1,800,000	
Humbolt.....	120,000		120,000	
Huron.....	240,000		240,000	
Indiana (Old).....	200,000		200,000	
Isle Royale.....	2,750,000		2,750,000	
Kearsarge.....	180,000	160,000	20,000	
Keweenaw.....	2,800,000		2,800,000	
King Philip.....	800,000		800,000	
Lake.....	300,000		300,000	
La Salle.....	1,000,000		1,000,000	
Mass Consolidated.....	2,100,000		2,100,000	
Mayflower.....	800,000		800,000	
Michigan.....	2,000,000		2,000,000	
Miners.....	2,000,000		2,000,000	
Minnesota.....	456,000	1,820,000		1,364,000
Mohawk.....	1,800,000	2,150,000		350,000
National.....	350,000	320,000	30,000	
New Aradian.....	75,000		75,000	
Nonestuch.....	400,000		400,000	
Northwest.....	283,000		283,000	
Norwich.....	230,000		230,000	
Ohio Trap Rock.....	150,000		150,000	
Ojibway.....	1,008,000		1,008,000	
Old Colony.....	1,100,000		1,100,000	
Osceola.....	1,700,000	9,343,250		7,643,250
Pennsylvania.....	126,000		126,000	
Poninsula.....	400,000		400,000	
Powabic.....	585,200	1,000,000		414,800
Phoenix (Old).....	1,037,500	20,000	1,017,500	
Phoenix Consolidated.....	1,350,000		1,350,000	
Quincy.....	200,000	19,302,500		19,102,500
Ridge.....	470,000	100,000	370,000	
Rhode Island.....	1,000,000		1,000,000	
Superior.....	100,000		100,000	
Tamarack.....	780,000	9,420,000		8,640,000
Tamarack Junior.....	640,000		640,000	
Tecumseh.....	500,000		500,000	
Trimountain.....	2,000,000	800,000	1,200,000	
Toltec.....	500,000		500,000	
Victoria.....	1,200,000		1,200,000	
Winona.....	2,200,000		2,200,000	
Wolverine.....	780,000	6,300,000		5,520,000
Wyandot.....	1,600,000		1,600,000	
Miscellaneous.....	10,000,000		10,000,000	
Total.....	79,565,700	194,120,806	61,813,500	176,298,696

REPORT OF JOHN B. DENSMORE, SOLICITOR OF THE DEPARTMENT OF LABOR, DETAILED AS COMMISSIONER OF CONCILIATION, ON HIS EFFORTS TO SECURE A SETTLEMENT OF THE STRIKE.

DEPARTMENT OF LABOR,
OFFICE OF THE SOLICITOR,
Washington, January 9, 1914.

The SECRETARY OF LABOR:

Pursuant to directions contained in your letter of December 26, 1913, I proceeded on that day to Calumet, Mich., for the purpose of attempting to settle the industrial dispute between the copper-mine operators and their men. For the purpose of ascertaining how difficult or easy might be the task of negotiating a settlement, I made an effort to obtain accurate information as to the number of men still on strike. From information given me by both operators and miners I concluded there were between six and seven thousand of the old employees still idle.

Approximately 15,000 men were employed just prior to the strike. On January 1, 1914, a statement from the operators shows 8,000 former employees at work: the statement from the strikers' officials shows benefits on that date being paid to 7,500 members of the union who are idle.

My negotiations with the striking miners were conducted through Judge H. U. Hilton, general counsel of the Western Federation of Miners, and Claude Taylor, president of the Michigan Federation of Labor. These gentlemen were in immediate charge of the strike during the absence of President Charles H. Moyer.

The original demands of the union were as follows:

1. A demand for the recognition of the Western Federation of Miners.
2. A demand for either the abolishment of the one-man drill or the working of two men on each drill.
3. A demand for a minimum wage of \$3 for trammers and \$3.50 for miners.
4. A demand for an eight-hour working day.

GRIEVANCES.

1. The claim that men are not treated with justice and decency by the petty bosses employed in the mines.
2. That the men have no adequate way of presenting grievances to the various mining managers without incurring the displeasure of the minor bosses, and undergoing discrimination and possible discharge for making complaints.

From Judge Hilton and President Taylor, representing the strikers, I obtained authority to make a settlement on the following basis:

1. That the miners be given an opportunity to present grievances through a committee.
2. That the wages and hours—\$3 minimum and 8¼ hours, proposed by the operators in notice posted by them on December 1, 1913, as a modification of the original demands, go into effect at once.
3. That the miners be taken back to work without discrimination on account of their membership in any union.
4. That there be no discrimination on account of membership in any union after they had returned to work.

The proposal did not require nor demand recognition of any union or organization, nor the signing of any agreement or contract by the operators with the Western Federation of Miners, nor its officials, national or local, nor with any individual employee, or at all.

For the purpose of bringing all the influence possible to bear upon the operators in urging this plan of settlement, I requested a conference with a committee of citizens representing all the public in the strike zone. This committee, composed of business men, bankers, and professional men from Houghton, Hancock, and Calumet, representing the Copper Country Commercial Club and Citizens' Alliance and the public, met me in conference, and heard my plan of settlement. After a discussion lasting six hours, during which every possible angle of the situation was discussed, and the distressing contingent possibilities attending a continuance of the conflict considered, the committee stated that they would not only refuse to urge the plan of settlement upon the operators, but would seriously object to the operators making any settlement that included the taking back of any old employees or others who were members of the Western Federation of Miners unless he first renounced his union, turned in his card to the company, and signed an agreement not to join or belong to the union.

I then proposed that the operators post notices at the mines to the effect that all miners who so desired would be taken back to work without discrimination. This offer of settlement was also refused on the same ground and for the same reason.

There being no possibility of obtaining the large influence of the citizens' committee behind my plan, the following day I presented the same plan to all the mine managers in conference. The plan was refused by the managers, collectively and individually, with unalterable determination. I was also told by them that no man who had ever been a member of the union could be employed without first separating himself from the Western Federation of Miners by turning into the company's office his union card and signing an agreement not to join or belong to the union. I was told that they would never, under any circumstances, either directly or indirectly, recognize the Western Federation of Miners, permit one of its members to work in the mines, or in any manner treat with them, individually or collectively.

My plan of settlement having failed, I asked the operators to propose a plan. They proposed to take back all the men for whom places could be found if the men would surrender their union cards and sign an agreement not to belong to or join the union. They also

proposed that I, as a representative of the United States, conduct a ballot of the men on strike on the question of returning to work on the operators' plan. This vote in effect would be to determine whether the strikers desired to renounce their union. The operators proposed this ballot because they stated they were convinced that the majority of the strikers desired to go to work, regardless of the union, and were only prevented from doing so through fear. As I was without authority to conduct such a ballot, except through the recognized representatives of the strikers, I laid the proposition before the strike leaders.

For the reason that the operators had no offer of any kind to make based upon the result of such vote—that is, they would not agree to treat or arbitrate should the vote disclose a determination to remain on strike—this proposal did not meet with the approval of the strike leaders.

The leaders of the strikers then advised me they had conceded all they could; that the only remaining concession the strikers could make was to give up their union cards and their right to belong to the union for a chance to work. This they refused to do. There being no remote possibility of a settlement on the basis above described, and no possibility of recession on the part of the operators or striking miners, my efforts to restore peace came to an end.

Very respectfully,

J. B. DENSMORE, *Solicitor.*

REPORT OF JOHN A. MOFFITT, IMMIGRANT INSPECTOR, DETAILED AS COMMISSIONER OF CONCILIATION OF THE DEPARTMENT OF LABOR, ON HIS EFFORTS TO SECURE A SETTLEMENT OF THE STRIKE.

WASHINGTON, D. C., November 21, 1913.

HON. WILLIAM B. WILSON,
Secretary United States Department of Labor,
Washington, D. C.

DEAR SIR: I desire herewith to submit a report of my efforts, as special representative of the United States Department of Labor, to adjust the strike in the copper fields of the northern Michigan Peninsula.

Relative to the strike in the copper fields of Michigan and in furtherance of the department's desire to bring about an adjustment of this labor difficulty by mediation, conciliation, or arbitration, I proceeded to Boston, pursuant to your oral instructions, and on September 2 last sought the good offices of Mrs. Glendower Evans, at her residence, 10 Otis Place, to bring about a conference between the officers of the Calumet & Hecla Copper Co. in that city and your representative, Mrs. Evans, besides being a stockholder in the company, having devoted a great deal of her time in the past to the improvement of the condition of the wage earner.

A meeting was arranged at the offices of the company, No. 12 Ashburton Place, Boston, Mass., on September 5, 1913, with Mr. Quincy A. Shaw, president; Mr. Rudolph Agassiz, vice president; and Secretary-Treasurer Flagg.

Messrs. Shaw and Agassiz dwelt at some length on the connection of the Western Federation of Miners with other labor difficulties, but Mrs. Evans and your representative finally secured Mr. Shaw's assent to meet committees of the employees who were on strike and of the employees who were not on strike, with the proviso, however, that members of the federation should be excluded from membership on either committee. Mr. Shaw further stated at that time that he intended to visit Calumet within a week or two, presumably with a view to bringing about some adjustment of the difficulty.

I had the honor of communicating to you orally at Washington on September 10 last Mr. Shaw's clearly expressed willingness to meet committees of the employees who were not connected with the federation, and you thereupon directed me to proceed to Calumet to confer with Mr. James McNaughton, the general manager of the Calumet & Hecla Co. and its subsidiary companies, with a view to bringing about, if possible, a conference between the respective representatives of the mine operators and the striking miners, using President Shaw's statement as the basis for such a conference.

Arriving at Calumet on the morning of the 13th instant, I had Mr. Walter Palmer, of the Bureau of Labor Statistics, arrange a meeting for me with Mr. McNaughton for 10 o'clock in the morning of the 15th instant, at the office of the Calumet & Hecla Co. Mr. Palmer accompanied me to this meeting where we met Mr. McNaughton and one of the attorneys for the mine managers, a Mr. Petermann. I discussed the strike situation at some length with Mr. McNaughton, and upon the conclusion of said discussion, tendered the good offices of the Department of Labor to bring about, if possible, an adjustment of the trouble. Mr. McNaughton asked how I proposed to do that. I said by mediation or arbitration. He said as to the former they (meaning his companies) wanted no "go between," and as to the latter he knew of nothing to arbitrate. He further stated that Mr. Palmer had already offered the good offices of the Department of Labor, which were declined, and that would be his answer to me. I thereupon requested him to meet a committee of his men on strike, informing him at the same time that I had consulted Mr. President Shaw and other officers of the Calumet & Hecla Co. at their offices in Boston, and that Mr. Shaw had expressed a willingness to meet committees of the men, provided the Western Federation officials were not represented on these committees. He said he knew of my having been to Boston, and that he and Mr. Shaw thoroughly understood each other. Mr. McNaughton then said that, while he would meet a committee of the men on strike, he first wanted to know how such a committee would be appointed. I replied by stating that in my opinion the fairest way would be to call the men on strike together in meeting and allow them to select their own committee, thereby eliminating the influences of the so-called objectionable federation officials. Mr. McNaughton said that he would reserve the right to pass upon the personnel of such a committee when appointed, and if any of them were objectionable to him, he would refuse to meet them.

He further stated that no matter what the outcome of a meeting with a committee would be, he was determined that the men would return to work upon individual application and in no other way, and that those given employment would first be obliged to sign a paper to the effect that they did not hold membership in the Western Federation of Miners, or would not while in the employ of the Calumet & Hecla and their subsidiary companies. Mr. McNaughton then reviewed the occurrences that led up to the strike, dwelling at some length on the history of the Western Federation of Miners, and in so doing expressed a determination never to confer with the local or general officers, or the individual members of the federation "for the purpose of adjusting the strike or for any other purpose." At this point I suggested that should the Western Federation of Miners waive claim to recognition of their union, would he then meet a committee of his employees on strike. His reply to this was: "Oh, no. They can't work that on me—form a local organization and subsequently join the Western Federation." I then expressed regrets at being unable to have Mr. McNaughton meet his employees, and thereupon decided to call upon all the mine managers (nine in number) of the copper fields individually.

On the morning of September 16 I called at the headquarters of the miners at Calumet, where I was permitted to interview those in

charge of the strike, including the officers of the Western Federation of Miners. After talking over the strike situation for some little time, I tendered to them the good offices of the Department of Labor to negotiate a settlement of the strike. (For miners' reply see attached letter, marked "Exhibit A.")

On the afternoon of September 16 I took up my work of meeting the mine managers individually by calling upon Mr. Theodore Dengler, manager of the Mohawk and Wolverine mines, at his home in Wolverine, where I was cordially received. I explained my mission to Mr. Dengler, who appeared to be very much interested, and when I explained to him my purpose for calling upon the managers individually he suggested that to meet the managers I would be obliged to cover a large territory, and further suggested that it was just possible that he could get the managers together in meeting for me at Houghton on the following morning, September 17, but in order to be sure he would phone me at my hotel the same evening. I accepted his kind offer, believing I could accomplish more by meeting them collectively. This meeting was held at the Houghton Club at Houghton on the morning of September 17. All the mine managers, including Mr. McNaughton, were present; also their attorneys, Messrs. Reiss and Petermann. After a general discussion of the strike situation had concluded, I offered, either individually or collectively, the good offices of the Department of Labor and presented each of them with copies of two propositions as a basis for the settlement of the strike. (Propositions herewith attached and marked "Exhibit B.")

As to their acceptance or rejection of the good offices of the department, nothing was said, but on reading the propositions Attorney Reiss suggested that there were several new elements contained in the propositions that would have to be considered, and desired to know whether I cared to discuss them informally or wished a formal reply. My answer to this was that, if agreeable to the mine managers, an informal discussion of them could be had, but that I also desired a formal reply. This appearing to be satisfactory, and in fact so expressed by Attorney Reiss, a general discussion ensued, which lasted upward of two hours, and during which the mine managers were insistent to know the actual number or the approximate number of the miners that voted to strike, and requested our Mr. Palmer and myself to ascertain, if possible, this information for them, which we agreed to do. Attached herewith is a copy of our findings, marked "Exhibit C," copy of which was forwarded by special delivery to each of the mine managers.

On the evening of September 20 Mr. Petermann, of counsel for the mine operators, called at my hotel and handed me a paper containing the reply of the mine managers to the propositions presented to them. (See attached paper, marked "Exhibit D.") In this connection I desire to further report that Mr. Petermann when handing me this paper said that the mine managers were determined to drive the Western Federation of Miners out of the copper fields, if they had to fight all winter to do so. I suggested that, if such was the attitude of the mine managers, the price exacted seemed to me inhuman, as there would unquestionably be terrible suffering, particularly amongst the women and children in such a cold country. To this he replied that the price paid made no difference to him. Believing that I had

exhausted all means in my power to effect an adjustment of the strike, I returned to Washington, and on September 24 I again had the honor of communicating to you orally the result of my efforts at Calumet. You thereupon directed me to get into communication with Congressman Andrew J. Peters, of Massachusetts, with whom you had already arranged to use his good offices with the officers of the Calumet & Hecla Copper Co. at Boston, to further try to effect a settlement of the strike at that point. Mr. Peters arrived in Boston on Thursday morning, October 1, called at the office of the Calumet & Hecla Co., and in an interview with Vice President Agassiz, arranged a meeting for us (Mr. Peters and myself) with the officers of the aforesaid company, for 10 o'clock in the morning on October 3.

At this meeting I told Mr. President Shaw of my mission to Calumet and the attendant results. I reminded him of his expressed willingness to meet committees of his employees on strike in our interview at Boston during the month of September. He said that he never agreed to meet committees of the Western Federation. I told him that the information I received at Calumet was that, since the inauguration of the strike, the several thousand miners on strike had joined the Federation, and that in a communication from their representatives to me they waived all claims to act on any committees, and were perfectly willing to be represented by men not members of the Federation. Mr. Shaw desired to know who these men would be, and I suggested that two public-spirited men of the class of Mr. Peters, and, if agreeable to Mr. Peters, he (Mr. Peters) to be one of them. Mr. Shaw evidently did not take kindly to this proposition, as he would not consider it until such time as the matter could be taken up with the full directorate of the company, and he did not know when this could be done. Mr. Peters thereupon propounded a number of questions to Mr. Shaw, among which was the following:

Question: "Mr. Shaw, would you and two other directors of your company meet a committee of the men on strike if such a request was made of you?"

Answer: "Yes; provided, however, that the invitation to attend such a meeting would come through Mr. McNaughton, as I would do nothing over Mr. McNaughton's head."

See letter of October 7 to Mr. Shaw and answer thereto. (Herewith attached, marked "Exhibit E.") I then told Mr. Shaw that, as far as I could learn from the men on strike at Calumet, if he was to go there there would be no question of an immediate settlement of the trouble and that I was somewhat surprised to learn that he had been to Lansing, Mich., and did not go to Calumet, as I presumed in my first talk with him that that was his intention. To this he replied as follows: That to have done so would have encouraged the strikers to hope that the company would deal with their organization. He first expressed regret that the governor and the Federal authorities had offered their good offices at mediation, saying that these efforts merely encouraged the men to continue the strike, for had there been no interference he was sure the strike would have been settled long before this. In the few minutes' talk that followed I incidentally mentioned the fact that the atrocities committed by the so-called Waddell gunmen from New York, particularly in the case where a family of poor inoffensive foreigners were shot down in their own home, were to be deplored. In reply Mr. Shaw said that his

company employed some of those Waddell men and that there were two sides to every case. I then inquired what caused the great haste and how it happened that the State militia was entrained to the copper fields 12 hours after the strike occurred. While at Calumet I was informed by Gen. Abbey, who was in charge of the militia, that the strike started on July 23 and the soldiers were entrained on the 24th, and it was inconceivable to me, at least, how the militia could be made ready in so short a time, unless there had been some understanding with the governor before the strike actually took place. Mr. Agassiz replied to this by stating that the governor was called up on the phone, and the militia was consequently dispatched to the strike zone. This ending the conference, I returned to Washington, and, acting under your instructions, I forwarded a copy of Mr. Shaw's answer to Mr. Peters's question to the representatives of the men on strike at Calumet, requesting a reply containing their views on the proposition of meeting a committee of the directors of the Calumet & Hecla Co. On October 20 I received letter (herewith attached, marked "Exhibit F") from Mr. Charles Moyer, representing the striking miners.

On October 24 I dictated and mailed a letter to Mr. Quincy A. Shaw (herewith attached, marked "Exhibit G") inclosing a copy of Mr. Moyer's letter and requesting an answer thereto. On October 31 I received his of the 29th. (Attached hereto, marked "Exhibit H.")

Before concluding my report to you, I believe it my duty to call your attention to the fact that on July 15 a petition from the miners, requesting a conference with the mine managers to place before them a number of grievances for adjustment, was forwarded by registered letter to each of the several mine managers of the copper district. The receipts for such letters are herewith attached (marked "Exhibit I"), and will show that six of the mine managers received those petitions but took no action on them, and that Mr. Charles L. Lawton, general manager of the Quincy Mining Co., refused to accept the petition mailed to him, the same being returned and attached hereto. (Marked "Exhibit J.")

And I desire to advise you that upon investigation I am credibly informed from authoritative sources among the leaders of the strikers that "had the mine managers respected the petitions forwarded to them and met the miners in conference, the strike would have been averted; but when the petitions were ignored the only alternative the men had was to strike." I wish to further call your attention to the correspondence had with the representatives of the men on strike. (Exhibits A and F.)

This correspondence clearly indicates that the officials of the Western Federation of Miners waived all claim of recognition of their union by the mine managers.

In conclusion, I believe it but proper to report that every honorable effort was made by your representatives (Mr. Palmer and myself) to bring about an amicable adjustment of this industrial conflict, but without avail, and feel that this report would be incomplete if I failed to recognize the very valuable suggestions and advices given by you to your representatives in the conduct of their negotiations for a settlement of this strike.

Respectfully submitted,

JOHN A. MOFFITT,
Special Representative.

EXHIBIT A.

REPLY OF WESTERN FEDERATION OF MINERS TO PROPOSITIONS.

CALUMET, MICH., *September 17, 1913.*

Mr. JOHN A. MOFFITT,
Special Agent, Department of Labor, City.

HONORED SIR: The striking miners of the copper district of Michigan, through their representatives, gladly accept your good offices in attempting to negotiate a settlement with their employers. They welcome arbitration in the settlement of this dispute, and further consider that your proposed method of constituting the board, eliminating as it does all question of the recognition of the Western Federation of Miners, puts it above any reasonable objection on the part of the employers, while at the same time it meets with our hearty approval, to wit: That all differences shall be settled by a board of arbitration, said board to consist of five members, two of whom shall be chosen by the mine managers involved in the controversy, or whatever numbers may desire a settlement; two to be chosen by the strikers in mass meeting assembled for that purpose, the two so chosen not to be members of the federation; the fifth member of the board to be chosen by Hon. W. B. Wilson, Secretary of the Department of Labor. We shall accept the arbitrament of said board in all matters at issue and hope that it will enter upon its duties very soon.

Appreciating your efforts in behalf of industrial peace based on justice, we remain,
Faithfully, yours,

C. E. MAHONEY.
YANCO TERZICH.
GUY E. MILLER.

EXHIBIT B.

FIRST PROPOSITION.

HOUGHTON, MICH., *September 17, 1913.*

To the managers of the mines in the copper district of Michigan:

GENTLEMEN: As a special representative of the United States Department of Labor I offer for your immediate consideration the good offices of the department in bringing about an adjustment of the existing strike of the mine workers. These good offices of the department are offered to you collectively or separately for the purpose of mediation, conciliation, or arbitration, under existing conditions preferably the latter, to wit:

- First. That all of the issues involved in the strike shall be settled by arbitration.
 - Second. That the board of arbitration shall be composed of five members.
 - Third. That two of the members shall be selected by the mine managers.
 - Fourth. That two of the members shall be chosen by the mine workers now on strike.
 - Fifth. That the latter two members shall not be members of the Western Federation of Miners.
 - Sixth. That the latter two members shall be selected at a meeting which all mine workers now on strike shall be invited to attend.
 - Seventh. That the fifth member shall be designated by the United States Secretary of Labor.
 - Eighth. That the decision of this board of arbitration shall be binding on both the managers and the mine workers now on strike.
- If this proposal as a whole is not acceptable to you, I request that you indicate what part of the proposition is objectionable.

Respectfully submitted.

JOHN A. MOFFITT,
Special Representative, United States Department of Labor.

SECOND PROPOSITION.

HOUGHTON, MICH., *September 17, 1913.*

To the managers of the mines in the copper district of Michigan:

GENTLEMEN: With the view of adjusting amicably the differences between you and your former employees now on strike, I propose to you, collectively or separately, that you discuss these differences with a committee composed of such a number of

persons as you may suggest; that these persons shall be members of the Western Federation of Miners, or shall not be members of that organization, as you may prefer, and they shall be chosen at a meeting which all of the mine workers on strike shall be invited to attend.

Respectfully submitted.

JOHN A. MOFFITT,
Special Representative, United States Department of Labor.

EXHIBIT C.

MICHIGAN HOTEL,
Calumet, Mich., September 19, 1913.

To the managers of the mines in the copper district of Michigan.

GENTLEMEN: In compliance with the request that was made at your meeting in Houghton on the 17th instant, that I should ascertain, if possible, the number of votes cast by your employees in favor of a strike and the conditions under which the vote was taken, I desire to inform you that upon investigation at the union headquarters at Calumet and other points I gathered the following information:

That the executive board of the Federation of Miners was requested by the mine workers of this district to give their approval to holding a referendum vote on two propositions, which was granted, to wit:

(a) Asking for a joint conference of the mine managers and the employees.

(b) In case a joint conference should be refused, that a strike be called.

After the aforesaid request was granted, meetings of the men were held at their respective places of meeting in this district, and they were notified that on July 1 balloting would begin at the offices of the secretaries at the following places: Calumet, Ahmeek, South Range, Hancock, and Mass City, and that the polls would be open each day until July 12, from 8 o'clock in the morning until 6 p. m., and all the men were urged to vote.

Notice of said balloting was advertised in the local papers in foreign languages, and committees of the men were also sent to the various localities, to remind the men of the referendum. The polls were closed to voting at 12 o'clock noon on July 12, and a canvass of the votes showed that nearly 9,000 votes were cast, and of this number 98 per cent voted in favor of the aforementioned propositions.

Very truly, yours.

JOHN A. MOFFITT,
Special Representative, United States Department of Labor.

EXHIBIT D.

MINE MANAGERS' REPLY.

HON. JOHN A. MOFFITT,

Special Representative, United States Department of Labor.

DEAR SIR: The undersigned, being managers of the copper mines of the counties of Houghton and Keweenaw in the State of Michigan, desire to express to you their most sincere appreciation of your offer of the good offices of the department in bringing about an adjustment of the existing strike, involving part of the mine workers of our companies, submitted to us in yours of September 16.

The first offer submitted by you begins with the proposition: "That all of the issues involved in the strike shall be settled by arbitration."

The real issue involved in the strike is recognition of the Western Federation of Miners as an organization entitled to represent, through its officials, the mine workers of this district. This has been publicly announced in speeches and in print by the officials of that organization themselves.

In like offers of mediation made by the governor of Michigan, personally and through special representatives appointed by him and acting by his authority, we have heretofore definitely declined to treat with the Western Federation of Miners, either directly or indirectly. This conclusion was arrived at in the first instance because of the past history of the federation in its operations throughout the mining districts of the West: because it was and is our firm conviction that the domination of the employees of the mining companies by that federation would not be to the best interests of our employees themselves; and because the federation was entirely unjustified in attempting to speak as the representatives of our employees, for the reason that, according to our best information at the time of the inception of the strike, confirmed by all the information which we have obtained since then, not to exceed 25 per cent of the employees of the

organization, and the large majority of our employees were not willing to be dominated by that organization.

It should also be recognized that because of the attitude of the officers, leaders, and organizers of the Western Federation toward the mining companies and their officials and employees there could not be a resumption of mutual relations of good will and confidence between employers and employees so long as the employees or any part of them are under the influence or domination of the federation. This should be apparent from the nature of the teachings and utterances of the officers, leaders, and organizers of the federation, as set forth in their published speeches and in their official publications.

All of the larger mines of the district have resumed operations with a large portion of the normal forces of their employees, who are entirely satisfied with conditions. In the case of the Calumet & Hecla, after deducting from the normal force those who are known to have removed from the district by reason of strike conditions or for other reasons, from 80 to 85 per cent of its employees have returned to work and are now engaged in their several occupations. Similar conditions (with varying percentages) exist at the other larger mines of the district which are now in operation.

Under these circumstances it is our judgment that we would be remiss in our duties toward the great majority of our employees if we should take any action which in any manner would recognize the Western Federation of Miners as the representatives of the mine workers or as dictating or dominating the actions of our employees, even to the extent of an arbitration as to their right to recognition or as to any other differences, real or fancied, which the federation may urge.

For these reasons, among many others which might be mentioned, we must adhere to our position that we will in no manner deal with the Western Federation of Miners, either directly, through mediation, arbitration, or in any other way.

The only issue involved at the time the strike was called by the Western Federation of Miners was our refusal to enter into any conference with a committee or representatives of the federation. The only demand that was made was for such a conference, with a statement that if we were not willing to meet the officials of the Western Federation it would be taken as proof that the situation could not be settled peaceably. We have had no other grievance submitted to us in any way, either officially or otherwise. This was not a grievance of our employees, but was a grievance of the federation, represented by their officials and organizers from other States, who are entirely unjustified in making any claim to a right to represent the employees of the mines of this district.

Both of your propositions, as submitted by you, involve arbitration or discussion by or with committees, a part of whom are to be chosen "by the mine workers now on strike."

The mine workers now on strike are those only who are members of the Western Federation of Miners. As above stated, they constitute but a small part of our employees. No method of choosing or appointing arbitrators or committees by "the mine workers now on strike" could be devised in which such choice will not be the direct choice of the Western Federation of Miners, as such, and with that federation we will have no dealings of any kind.

It can not be too definitely understood with relation to the present situation that the mining companies can not and will not in any manner recognize or deal with the Western Federation of Miners. They do not represent our employees, but on the contrary, under present conditions, they stand between the employers and the employees as the only bar to a satisfactory and amicable adjustment of all existing differences.

Because of this situation and without any lack of full appreciation of the efforts of yourself and the Department of Labor, we feel that it is necessary to say to you that we can not accept any plan of mediation or arbitration between the mine employers and "the mine workers on strike," which is but another designation for the Western Federation of Miners.

But we beg to suggest to you, in view of the situation as above stated and as it exists in the counties of Houghton and Keweenaw at this date, that if you should use your personal influence and the influence of the Department of Labor to induce the officials, organizers, and leaders of the Western Federation of Miners to come to a full realization of the futility of any attempt to secure recognition in this district or to retain a standing therein which would permit them to remain as a factor of influence among our employees or any portion thereof, and to withdraw themselves and their influence from the present situation and from the district, there would then be nothing in the way of an early adjustment of any differences or grievances, if they exist, between the employers and their employees. In this way and in this way only can the present deplorable condition be remedied or adjusted.

Since the inception of the strike it has been stated in published speeches of the officials of the Western Federation of Miners that they demanded an eight-hour day, abolition of the one-man drill, and a minimum wage of \$3 per day for all employees. No grievances of that kind were stated or submitted to the companies in any form.

As to the working hours, it may be stated to you, as was stated to Judge Murphy, who was here on a similar mission in behalf of the governor of Michigan, that for some time prior to the inception of the strike there has been under consideration by the several companies the institution of an eight-hour day for underground employees, so far as that rule could be made practicable. The present strike situation does not alter the intention of the companies in that regard. It is known to the companies that a large number of their underground employees do not want the eight-hour day, and are opposed to it, but we will state to you that if the eight-hour day for our underground employees is desired by them, or a sufficient majority of them, it has been and will continue to be given favorable consideration.

The one-man drill question is purely and simply a manufactured grievance. We know it to be the fact that those who operate these drills do not want them abolished. The continuation of the mining industry in this district requires the use and application of every modern appliance for the reduction of cost. It is made necessary by the low copper contents of the rock and the expenses of deep mining, as compared with the higher production of other competing districts. The one-man drill is an economic necessity which has come to stay. The conditions of its use have been prescribed by the legislature, and the question of its abolition is one which could not be submitted to arbitrators.

As to the minimum-wage question, the conditions at the different mines vary to such a large extent that no scale can be adopted applicable to all the different conditions. This has been impossible in the past and will continue impossible in the future, and would be as unfair to the laborers themselves as to the companies.

We greatly regret that the situation is such as to render the plan of arbitration or of conference with a committee or with representatives of the Western Federation of Miners an impossibility to us. With the elimination of that organization, arbitration or mediation would become wholly unnecessary, as we are convinced that there would be no difficulty in adjusting satisfactorily all questions that might arise between our employees and the respective companies by whom they are employed.

Dated at Houghton, Mich., September 20, 1913.

Very respectfully,

JAS. MACNAUGHTON.
F. W. DENTON.
J. L. HARRIS.
THEO. DENGIER.
R. R. SEEBER.
ENOCH HENDERSON.
CHAS. L. LAWTON.

The following mines are represented by the above signatures:

Mr. James MacNaughton is general manager of the Calumet & Hecla Mining Co., Ahmeek Mining Co., Allouez Mining Co., North Kearsarge Mine, South Kearsarge Mine, Tamarack Mining Co., Osceola Consolidated Mining Co., Laurium Mining Co., La Salle Copper Co., Isle Royale Copper Co., Superior Copper Co., St. Louis Copper Co., and Centennial Copper Mining Co.

Mr. F. W. Denton is general manager of the Baltic Mining Co., Champion Copper Co., and Trimountain Mining Co.

Mr. Charles L. Lawton is general manager of the Quincy Mining Co.

Mr. Theo. Dengier is agent of the Wolverine Copper Mining Co. and Mohawk Mining Co.

Mr. J. L. Harris is general manager of the Hancock Consolidated Mining Co. and Oneco Copper Mining Co.

Mr. R. R. Seeber is superintendent of the Winona Mining Co. and Houghton Copper Co.

EXHIBIT E.

DEPARTMENT OF LABOR,
OFFICE OF THE SECRETARY,
Washington, October 7, 1913.

QUINCY A. SHAW, Esq.,
12 Ashburton Place, Boston, Mass.

DEAR SIR: As my report to Secretary Wilson, of the United States Department of Labor, of the interview Congressman Peters and I had with you and Mr. Agassiz at your office at Boston, is in the course of preparation, and in order to have said report

as nearly correct as possible, I desire to ask if I quote you properly in the following answer to a question propounded by Mr. Peters:

Question by Mr. Peters: "Mr. Shaw, would you and two other directors of your company meet a committee of the men on strike if such a request was made of you?"

Answer by Mr. Shaw: "Yes; provided, however, that the invitation to attend such a meeting would come through Mr. MacNaughton, as I would not do anything over Mr. MacNaughton's head."

An early reply will be inexpressibly appreciated by,

Yours, very truly,

JOHN A. MOFFITT.

Special Representative, United States Department of Labor.

CALUMET & HECLA MINING CO.,

Boston, Mass., October 10, 1913.

JOHN A. MOFFITT, Esq.,

Special Representative, United States Department of Labor,
Office of Secretary, Washington, D. C.

DEAR SIR: I beg to acknowledge your letter of October 7, which I only received this morning on my return from a trip to Buffalo and New York.

You have correctly given my answer to Mr. Peters's question, except that there should be added to the answer my statement at that morning's meeting that I would not meet a committee of our former employees if any members of the Western Federation of Miners were on such a committee and, furthermore, I stated that there were many men formerly in our employ who have participated, and are continuing to participate, in acts of violence, who, in our opinion, are of a type of man whom we will not again knowingly employ, and that if any of these were on the committee I should reserve the right as to whether or not I should see the committee.

Yours, very truly,

QUINCY A. SHAW, President.

OCTOBER 15, 1913.

MR. CHARLES MOYER,

President Western Federation of Miners, Calumet, Mich.

DEAR SIR: On the morning of the 4th instant Congressman Andrew J. Peters, of Massachusetts, and I had a meeting with Messrs. Quincy A. Shaw, president; Rudolph Agassiz, vice president; and George A. Flagg, secretary-treasurer, of the Calumet & Hecla Mining Co., at the offices of said company, 12 Ashburton Place, Boston, Mass., where we urged these gentlemen to agree to meet committees representing their men now on strike in the copper fields of Michigan; in fact, we pointed out to them that, in our opinion, it was their duty to meet their men and try and effect an amicable adjustment of the present strike. After a two-and-a-half hour discussion of the conditions obtaining in the copper fields of Michigan, at least as I saw them, Congressman Peters propounded a number of what might be termed "acute" questions to Mr. Shaw, one of which I herewith inclose a copy.

In preparing my report to Secretary Wilson of this meeting, and in order to have same correct, on the 7th instant I forwarded the question and answer to Mr. Shaw for verification, and on the 10th instant I received his answer, a copy of which is herewith inclosed.

I therefore desire that after a careful perusal of the said questions and answers thereto, you will let me know the position of the men on strike. As to Mr. Shaw's reply, I might further say that our files here in Washington will be incomplete until we receive your answer to the propositions under cover.

Anticipating an early reply, believe me,

Very truly, yours,

JOHN A. MOFFITT.

Special Representative, United States Department of Labor.

EXHIBIT F:

CALUMET, MICH., October 18, 1913.

JOHN A. MOFFITT.

Special Representative, United States Department of Labor,
Washington, D. C.

DEAR SIR: In reply permit me to say that we know of no men on strike who are not members of the local unions of the Western Federation of Miners. It is agreeable to us that a committee selected by the men on strike shall meet Mr. Shaw and two

other directors of the Calumet & Hecla Mining Co., at any time Mr. Shaw and said directors express a willingness to meet them.

We further agree that if Mr. Shaw and the directors should make any concessions to the demands of the men on strike and that a referendum vote will be taken to determine whether the same shall be accepted.

It is further agreeable that no representative of our international organization shall serve on said committee.

Very truly,

CHAS. H. MOYER,
President Western Federation of Miners.

CALUMET, MICH., October 18, 1913.

Mr. JOHN A. MOFFITT,
Special Representative, United States Department of Labor,
Washington, D. C.

DEAR SIR: I beg to acknowledge receipt of yours of the 11th instant, inclosing a question propounded by Congressman Andrew J. Peters, of Massachusetts, to Mr. Quincy A. Shaw, president of the Calumet & Hecla Mining Co., at a meeting held at the office of said company on the morning of October 4, and have carefully noted your request for an answer from me to the proposition submitted by Mr. Shaw.

As I understand the question submitted by Mr. Peters was as follows:

"Mr. Shaw, would you and two other directors of your company meet a committee of the men on strike if such a request was made of you?" Answer of Mr. Shaw: "Yes; provided, however, that the invitation to attend such a meeting would come through Mr. McNaughton, as I would do nothing over Mr. McNaughton's head."

And that on October 10, in answer to an inquiry from you, addressed to Mr. Shaw, asking him if you had quoted him properly, he stated that he had been correctly quoted, but that it was his desire to have added to the answer that he would not meet a committee of former employees if any members of the Western Federation of Miners were on such a committee.

In reply permit me to say that we know of no men on strike who are not members of the local unions of the Western Federation of Miners. It is agreeable to us that a committee, selected by the men on strike, shall meet Mr. Shaw and two other directors of the Calumet & Hecla Mining Co., at any time Mr. Shaw and said directors express a willingness to meet them.

We further agree that if Mr. Shaw and the directors should make any concessions to the demands of the men on strike, that the committee will refer the same back to the men on strike and that a referendum vote will be taken to determine whether the same shall be accepted.

It is further agreeable that no representative of our international organization shall serve on said committee.

Believing that an adjustment of this deplorable situation would result should such a conference be held, and assuring you of our earnest desire to do anything within reason to that end, I am,

Very truly,

CHAS. H. MOYER,
President Western Federation of Miners.

EXHIBIT G.

UNITED STATES DEPARTMENT OF LABOR,
IMMIGRATION SERVICE,
Washington, D. C., October 24, 1913.

Mr. QUINCY A. SHAW,
President Calumet & Hecla Mining Co.,
12 Ashburton Avenue, Boston, Mass.

DEAR SIR: By direction of the Hon. W. B. Wilson, Secretary of the United States Department of Labor, I forwarded to the striking miners at Calumet, Mich., a copy of the result of the meeting held at your office at Boston, Mass., on the 4th instant, at which Mr. Agassiz, Congressman Peters, yourself, and I were present, requesting a reply to the suggestions contained therein.

On the 20th instant I received an answer, a copy of which I herewith inclose, and request that you give immediate consideration to the propositions contained in same, and kindly favor me with your conclusions in the matter as soon as is convenient for you to do so.

Very truly, yours,

JOHN A. MOFFITT,

EXHIBIT H.

CALUMET & HECLA MINING CO.,
Boston, Mass., October 29, 1913.

Mr. JOHN A. MOFFITT,
Special Representative, United States Department of Labor,
Washington, D. C.

DEAR SIR: Upon my return from Philadelphia this morning I find your letter to me of the 24th instant inclosing copy of letter to you signed "Chas. H. Moyer, president W. F. of M." (president of the Western Federation of Miners).

I have repeatedly stated to you that we could have no negotiations with this organization.

Without, however, dwelling on this and the other considerations which in themselves would govern our action, I feel confident you will agree with me that the acts of lawlessness and violence of almost daily and nightly occurrence at the Michigan copper mines since our interview on the 4th instant make it impossible to consider the matters commented upon in his communication.

I take this opportunity of sending you, under separate cover, a half-dozen copies of the report made to Gov. Ferris by the committee appointed by the Copper Country Commercial Club to look into the conditions existing in the copper mines at Lake Superior.

Yours, truly,

QUINCY A. SHAW, President.

EXHIBIT I.

6 CH. BN.

HANCOCK, MICH.

Yours 157, 17th sqd. Dan Dullivan to Quincy Mining Co. Decline to accept. M. S. G.

R. G.—New York, N. Y., July 18-13.—10.10 p. m.

EXHIBIT J.

Letter No. 121.

P. O., Hancock, Mich.

Received for registration 7/15, 1913, from copper district. C. E. Hietala, Secy. union. Addressed to James MacNaughton, gen. mngr. of Calumet & Hecla Mining Co. 1st class postage prepaid. Postmaster, per T. W. (Return receipt requested.)

[Face.]

Post Office Department. Official business. Original Reg. No. 121.
Return to C. E. Hietala, sec'y, Box 217, Hancock, Mich.
(Stamped:) Calumet, Mich., July 15, 1913, 3.30 p. m.

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.

Date of delivery 7/15, 1913. Jas. MacNaughton. Frank Gillet, agent.

Letter No. 150.

P. O., Hancock, Mich.

Received for registration 7/16, 1913, from Copper Dist. Union, C. E. Hietala, sec'y, addressed to Mr. Richard M. Edwards, supt. Franklin Mng. Co., Houghton, Mich. 1 class postage prepaid. Postmaster, per T. A. W.

(Return receipt requested.)

Special delivery.

[Face.]

Special delivery.
Post Office Department. Official business. Original Reg. No. 150.
Return to C. E. Hietala, sec'y, Box 217, Hancock, Mich.
(Stamped:) Houghton, Mich., July 17, 1913. 10.30 a. m.

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.
Date of delivery, 7/17, 1913. R. M. Edwards.

[Face.]

Post Office Department. Official business. Original Reg. No. 148.
Return to C. E. Hietala, sec'y, Box 217, Hancock, Mich.
(Stamped:) Hancock, Mich., July 17, 1913. 4 p. m.

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.
Date of delivery, 7/17/13. Jno. L. Harris. Oscar Johnson, agent.

[Face.]

Post Office Department. Official business. Original Reg. No. 151.
Return to: C. E. Hietala, Sec'y, box 217, Hancock, Mich.
(Stamped:) Jul 17 1913

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.
Date of delivery, July 17, 1913. C. K. Hitchcock, jr.

[Face.]

Post Office Department. Official business. Original Reg. No. 142.
Return to: C. E. Hietala, Sec'y, Hancock, Mich.
(Stamped:) Painesdale, Mich., Jul 16 1913 1 p m

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.
Date of delivery, July 16, 1913. Fred W. Denton. Fred W. Collick.

[Face.]

Post Office Department. Official business. Original Reg. No. 141.
Return to C. E. Hietala, sec'y, Hancock, Mich.
(Stamped:) Mass, July 16, 1913, 5 p. m.

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.
Date of delivery, 7/16/13. Elton W. Walker. E. F. S. agent.

[Face.]

Post Office Department. Official business. Original Reg. No. 140.
Return to C. E. Hietala, sec'y, Hancock, Mich.
(Stamped:) Mohawk, Mich., July 16, 1913, 5 p. m.

[Back.]

REGISTRY RETURN RECEIPT.

Received from the postmaster registered article, the original number of which appears on the reverse side of this card.
Date of delivery, 7/16, 1913. Mohawk Mining Co. F. H. Getchell, clerk.

Letter No. 140.

P. O., Hancock, Mich.

Received for registration 7/15/1913, from C. E. Hietala, sec'y, addressed to Frederick W. Denton, Painesdale, Mich. 1 class postage prepaid. Postmaster, per J. A. W.
(Return receipt requested.)

Letter No. 141.

P. O., Hancock, Mich.

Received for registration 7/15 1913, from C. E. Hietala, sec'y, addressed to Mohawk Mining Co., Mohawk, Mich. 1 class postage prepaid. Postmaster, per J. A. W.
(Return receipt requested.)

Letter No. 142.

P. O., Hancock, Mich.

Received for registration 7/15/1913, from C. E. Hietala, sec'y, addressed to Elton W. Walker, Mass Cons. Mn'g Co., Mass. City, Mich. 1 class postage prepaid. Postmaster, per J. A. W.
(Return receipt requested.)

[Face.]

Sent to Ipswich defense fund, Ipswich. Donation.

[Back.]

RECEIPT FOR U. S. POSTAL MONEY ORDER.

Dollars, 12. (Amount for which issued.)
(Stamped:) Hancock, Mich., July 15, 1913. M. O. B.

Special.

Letter No. 117.

P. O., Hancock, Mich.

Received for registration, 7/14, 1913, from Box 217, C. E. Hietala, sec'y, addressed to Mr. Chas. L. Lawton, general mngr. Quincy Mng. Co., Hancock, Mich. 1 class postage prepaid. Postmaster, per J. A. W.

[Sealed envelope.]

Registered No. 117.
(Addressed:) Mr. Chas. L. Lawton, general manager of the Quincy Mining Co., Quincy, Hancock, Michigan.
From C. E. Hietala, sec'y Copper District Union, Box 217, Hancock, Mich.
Return receipt requested.
(Written on face:) Refused.

[Back.]

(Stamped:) Hancock, Mich., July 14, 1913. Registered.

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