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The Great War and Lake Superior PART 2

Russell M. Magnaghi

[Editor's note: this is Part 2 and the conclusion of the article]

Preparing for War

Before and during the war various programs were developed to prepare young men for immediate conscription into the Army and Navy. Since the late 1890s the US Navy leased the *USS Gopher* and the *USS Yantic* to the Naval National Guard in Minnesota and Michigan. The former was docked at Duluth and the other at Hancock. When the war broke out over two hundred men were sent with their ships to the East Coast and joined the Navy having been prepared for action. A few days after declaration of war, some forty male students at Northern State Normal School (today Northern Michigan University) were drilling as they were in both high schools and colleges around the lake.

In April, 1918 the federal government gave permission to about 400 colleges and universities to train at least one hundred able-bodied men during the school year of 1918-1919. This program was known as the Student Army Training Corps (SATC) and the forerunner of the Reserved Officer Training Corps (ROTC). SATC was located on the Michigan Tech campus in Houghton. Northern State Normal School (now Northern Michigan University) developed a program in September 1918 but it was soon quarantined with the coming of the Spanish flu. By the time the flu threat was over the war had ended.

Aliens had to register but they were not drafted into the military. At the start of the war in 1914 a number of aliens left the neutral United States and joined the armies of the countries they had left. Enemy aliens in Canada were not allowed to return home and enlist for obvious reasons.

However many aliens wanted to get into the war. During the years that the United States was neutral, official recruiting was frowned-upon but Canadian recruiters raised over 1,000 men along the border-states. After the United States joined the war English recruiters entered the scene and established a headquarters at Ironwood. They recruited over forty Englishmen to the dismay of the mine owners who lost valuable workers.

Early in the war the British realized that there would be a great demand for wood and timber, which was needed for trench support, building barracks and hospitals, railroad ties, shoring timbers and even crates, etc. They figured that Canadians would be best qualified for this job in both England and France. As a result the Canadian Forestry Corps was formed and attracted numerous men from the Lake Superior region. When the United States entered the war the British and French asked for regiments of woodsmen. Two forest regiments – 10th and 20th Engineers (Forest) U.S. Army were created and did similar work. Newspapers throughout the United States and especially the Lake Superior Basin called for axmen, teamsters, wood sawyers, and “all around woodsmen.” In particular cooks, blacksmiths, master boilers, and engine repairmen were needed. They would serve their country as volunteers with axes and saws rather than guns by joining the forest regiments. Fifty percent of the officers would be sawmill and logging operators; 25 percent would be technical foresters, and 25 percent of the men would have military training. Many local men joined these two forest regiments and put their woodland expertise to great effect. At times they came under fire from artillery barrages and air strikes and their mills were overrun by German sweeps. Toward the crucial days at the end of the war 1,280 Canadians joined in the fighting.¹

There were thousands of men and women from the region who served in the military. Joe Isaacs was an Indian soldier from Manistique who rescued Frank Stibbins of Owosso from the

battlefield. Isaacs was a member of Co M 125th Infantry and had been one of the first groups of volunteers to leave from Manistique. Paul Rediker also of Co M 125th Infantry was an early volunteer. He was the only soldier from the Upper Peninsula to receive a War Cross.

The reality of the war quickly returned home. Joseph Lifter and Will Newett were the first Ishpeming boys to serve and fought in the Battle of Chateau-Thierry. In 1919 they spent New Year's with their families. Lifter was shell-shocked on August 6, 1918 and Newett was twice hit by mustard gas. At one point the *Mining Journal* reported that some of the men tell "some wonderful tales of the fierce fighting during more than two months that they were near the front." Cosmoe Sater was aboard the *Tuscania* serving with the 20th Engineers when it was torpedoed. He survived and lent a helping hand with the evacuation. And then there were the men who died like Gabriel J. Cadreau of Sugar Island, Joseph Calligaro of Ironwood, Anton Aboelski of Bessemer, and Octave Chenail of Delta County.

Many immigrants served in the war. The Trelawney Lodge of the Sons of St. George in Ishpeming saw seventeen of its younger members serve in the US Army and Navy. Many more were planning on leaving in the coming months and younger members were contemplating enlisting as soon as it was possible. They dedicated a service flag and honored its members who were serving. In March 1918 a contingent of Italians, Finns, Cornish and Swedish men left from Marquette County.

Polish officers who served in the French army came to the United States to recruit Polish immigrants into a Polish Legion. At Duluth a group of Polish recruiters organized a public program promoting the idea that an independent Poland would be a result of the war. They were well received by the immigrants. Lieutenant Edward Ostronski operated out of an office in Duluth and soon some 400 Poles were enlisted and sent to Chicago on their way to France. There

was also a group of recruiters sent from Superior and they successfully found recruits in Calumet and the Marquette and Gogebic Iron Ranges. In Marquette the Polish recruiting office was located on Spring Street. Eventually several thousand Polish immigrants from across the country served in the Legion and fought with the French army.²

One of the Michigan Constabulary's (modern State Police) priorities was to round up slackers, individuals who avoided military service. The constabulary was active in its work. In the middle of the winter they staked out a lumber camp in Gogebic County and arrested a number of slackers. In March 1918 a "large number" of Negaunee men went to Canada to avoid the draft and were working in the woods. It was noted that they might be in for a big surprise when they were drafted into the Canadian Army. In Canada at Fort William a special unit of the Dominion police was created to go after draft dodgers. On the border, American immigrant inspectors frequently arrested deserters and returned them to Canada. St. Louis County had more slackers than any county in Minnesota and the county jail in Duluth was filled and needed state intervention. In Hibbing alone there were 200 draft dodgers. However once they were rounded up and names sent to federal authorities little was done, much to the disgust of the population.³

The war not only involved service men and women who were in the military and went overseas but it also involved the public at large. In today's world where we send the military to fight and either forget about their service or do not know about it, World War I gripped the nation. Throughout the war, service men and women kept in touch with their families and their letters appeared in local newspapers. This allowed the homebound citizenry to keep abreast of life, trials and tribulations of the life at the front.⁴ As a result people were aware of the war, which they did their best to bring to an end. Patriotic dentists fixed bad teeth of hopeful recruits, free of charge, so that they could join the Army.

At Duluth and Superior there were three large shipyards that were producing ships for the war. An interesting development took place in Duluth. Workers were dissatisfied with the working conditions and wages. Some 800 delegates representing every craft affiliated with union labor in shipbuilding met on February 20, 1918. The radical element called for a strike but the patriotic group turned the meeting into a loyalty event and the delegates voted to support the government, avoid petty quarrels and a strike and returned to work.⁵

Loyalty meetings and events promoting the war effort were held on a regular basis throughout the region. Dr. O.J. Johnson, president of Gustavus Adolphus College in St. Peter, Minnesota visited Marquette and was a speaker at Northern Normal and said that “the welfare of our country needs the enthusiastic and sacrificing support of every loyal citizen.” The Swedish Lutheran choir was on hand as well. At Hibbing, “Austrians” (actually Croatians and Slovenians) met in a mass meeting and four hundred of them voted to stand behind President Wilson and the United States. Dr. Bogmil Vasnyak, professor of constitutional law at the University of Zagreb spoke to them: “We have come to this country to live and we must stand behind the President to make the world safe for democracy. The United States is not fighting the German people but the German militarism and as such, the United States is also at war with Austria.”

In Iron Mountain, home to Italian immigrants and ethnic Italians from the Austrian province of Trentino the war intruded into their lives. Prior to the war all of the Italian women were members of the Italian Women’s Club. When Italy declared war against Austria the Trentino Italian women were considered the “enemy.” The Austrian-Italian women stayed in the club while the other women created a patriotic club named after the queen of Italy, Margherita. The clubs never reunited.

Financing the War with Bonds

Both Canada and the United States had to raise money for the war effort. In Canada, War Bonds were introduced in November 1915 and were successful among the population in the Basin. They were called Victory Bonds after 1917. Communities over-subscribed and some people took money from bank accounts to support the war effort. The Rotary Club in Fort William and Port Arthur was instrumental in putting over two Victory Loan campaigns. People also readily contributed to the Canadian Patriotic Fund, organized in 1914 by federal statute and privately headed. It provided financial and social assistance to soldiers' families. At Fort William employees of Kam Power Company donated a day's pay to help start the Patriotic Fund. Canadians held weekly teas, dances, knitting clubs and movies.⁶ By March 31, 1917 Canadians had contributed \$22,981,616 to the Fund and a total of \$49,271,012 to a host of other projects.

In the United States there were similar Liberty Loan drives. Most people readily purchased millions of dollars in bonds as their patriotic duty. In Ontonagon County home to one of the highest percentage of foreign-born people in the state of Michigan, the county exceeded its quota in one drive by 25 percent. This put to shame vigilantes who equated being foreign-born with a lack of patriotic sentiment. Germans who many suspected as possible spies and enemy agents proved their loyalty and personal pride in America and "to free their own beloved Fatherland from the iron rule of ruthless war crazed autocracy" readily purchased bonds. In September 1918, A. R. Rogers, chair of the Liberty Loan Executive Committee highlighted the loyalty of the people of the Northwest and the 9th Federal Reserve District, which included Minnesota, Wisconsin and the Upper Peninsula. He said that the people would buy them for the war effort even if they did not pay interest! The Calumet & Hecla Mining Company purchased \$1 million in bonds during the Fourth Liberty loan.⁷ The employees at the Northwestern Tannery

in Sault Ste. Marie readily bought bonds and on a number of occasions pushed Chippewa County over its assigned amount. In a L'Anse lumber camp some eight men purchased over \$2,000 in bonds in the last bond drive.

Red Cross volunteers were active throughout the region and included many immigrant women. At one point a volunteer group prepared 10,745 pieces of surgical dressing, 342 hospital garments, and 180 sets of knitted garments. In tiny Cook County in the Arrowhead Country adjacent to Canada, to raise money a "hard times party" was held. Attendees had to dress in ragged or old clothes or pay a ten-cent fine.⁸

The vital St. Mary's Shipping Canal and the smaller Canadian lock at the Soo were of concern to the Canadian and United States military. If a saboteur destroyed even a portion of the locks, valuable iron, copper, coal and grain could not meet the wartime demands.

The Canadian canal, which is smaller than the American complex, was guarded by a local military unit at the start of the war in the summer of 1914. The 49th (Sault Ste. Marie) Field Artillery Regiment RCA began as the 51st Regiment in 1913 and was renamed the Soo Rifles in February 1914. When Canada entered the war, two days later on August 6 the Soo Rifles were ordered to take up positions at the Canadian Soo canal protecting it from possible sabotage, which they continued throughout the war. Volunteer units along with the Soo Rifles were sent to France as reinforcements where they conducted honorable service.

The Soo Canal and the War

The American protection of the canal took an interesting twist. First in 1913 the Army unit stationed at Fort Brady guarding the canal was removed and sent to the U.S.-Mexican border

during the crisis with Pancho Villa. At that time there was talk that the military unit might not be needed and money could be saved by closing down Fort Brady.

In May 1916, William J. Flynn, chief of Secret Service in Michigan, said that protection of the locks was inadequate. One saboteur could be stopped, but it would be impossible to stop an organized attack. As he noted no one expects an attack but then no one expected Pancho Villa's raid on Columbus, New Mexico! He ventured, "Someday the country may sufficiently absorb preparedness principles to maintain an adequate force of troops here, who knows?"⁹

Before the Army returned to guard the locks, local action was discussed. Michigan planned to send in the National Guard and others talked of using private pleasure craft to guard the canal. Under Navy supervision the boats would be armed with machine guns, radios and signal outfits. The owners of the boats could sell, lease or loan their boat to the government and the owners could enroll in the service as a lieutenant commander or subordinate officer. Fortunately this piecemeal plan was not necessary.¹⁰

As the United States moved towards a declaration of war, the federal government finally decided to reoccupy Fort Brady. On March 28, 1917 a military guard was stationed at the locks. Barbed wire barriers were thrown up to protect this critical waterway. Soon after declaration of war life at the canal changed. The Government Park remained open to the public but an armed guard stood by the locks and the military occupied parts of the park. Visitors could not cross over the lock gates nor was fishing allowed along the rapids.¹¹

In 1916 ninety-one million tons of freight – largely iron ore, copper ingots, coal and grain – passed through the locks. This would remain a record not surpassed until 1929. Throughout the war, traffic through the canal remained high: 89 million tons in 1917 and 68 million tons in 1918.

Wartime cutback on civil work projects did not affect the canal and locks. Between September 15, 1917 and June 27, 1918 the Vidal Shoals were dredged to improve water discharge from the government power plant and work on the Fourth Lock continued throughout the war and for some unknown reason completion in 1918 did not take place until a year later.

While these projects were underway, a record number of ships continued to pass through the locks. On a single day, July 5, 1917, 161 vessels were handled. The original Weitzel lock complete in 1881 but closed to traffic in 1914 with the opening for the Third Lock was re-commissioned on June 17, 1918. Some 2,000 vessels passed through the lock until it closed again on October 31.¹² Naturally improvements continued after the war as well.

Mineral Production and the War

The Lake Superior District – Michigan, Wisconsin, and Minnesota – in 1917 produced 63,854,752 tons of iron ore and in 1918 production was 62,285,000 tons. The bulk of the ore passed through the Soo locks while some two million tons moved by rail primarily through the docks at Escanaba. The Michigan iron ore production was 17,868,601 tons and in 1918 it was 17,131,000 tons.¹³ About 86 percent of iron ore used during the war came from the Lake Superior District. In the Canadian Algoma District north of Sault Ste. Marie, the Helen and Magpie mines produced less than 200,000 tons of a variety of iron ores. In all cases labor shortages due to the war effort kept maximum production below its potential.¹⁴

One Minnesota iron range – the Cuyuna - in Crow Wing County was unique for a number of reasons.¹⁵ It was opened in 1911 and for a number of years there was little demand for its ore because of its high manganese content. Before the war manganese was obtained from India and Russia and of manganiferrous alloys from Germany and Great Britain, but these supplies were

terminated with the outbreak of the war in 1914. The manganese ores were used in specific types of hard steel, vital to the military and heavy machinery sectors of the US economy. The only place in the United States where sufficient quantities of manganiferrous ore could be obtained, to supply the extraordinary demand of the blast furnaces, was at the Cuyuna district. Suddenly mines went into full production and further exploration and development took place and more mines opened. It was said that workers from the Cuyuna Mine received an automatic deferment from the military. Ore was shipped out through Superior and the Steel Company of Canada in Hamilton, Ontario, ordered some of it. Edward F. Goltra president of the Mississippi Valley Iron Company of St. Louis successfully promoted a plan to have the ore railed by Northern Pacific to St. Paul and from there by government barges to St. Louis where it was processed.¹⁶ The ore passed from the iron mines to the ore boats through docks located throughout the area. They were found in Duluth, Superior, Ashland, Marquette, and Escanaba.

The coming of the war brought a higher and increasing demand for copper; the price doubled. The major operation in Michigan's Copper Country was Calumet & Hecla. They reclaimed copper, pooled resources and worked with trade associations. However they were faced with a decrease in employees, as many as 20 percent, due to conscription and sought to retain old employees. If 1912 methods had continued through 1916 an additional 200 men would have been necessary to reach their 1916 production levels. Despite the technology, the loss of men had a negative effect on their production figures. In 1917 the Michigan copper mines produced 268,508,091 pounds of milled copper.¹⁷

All of the copper companies realized they needed men to meet the demands of the war. In 1916-1917 the Champion Mine on the Baltic lode built sixty new homes at Painesdale to attract and keep men it needed to push production to as high as 33.6 million pounds annually. At the

same time Quincy mine built a two-story brick and sandstone clubhouse for its workers. Flagpoles were placed in front of company homes to promote patriotism. Beautification programs like landscaping Agassiz Park in Calumet were halted as the men were needed in the mines and would not resume until the 1920s.¹⁸

At Duluth, Docks #5 and #6 were constructed in 1918 due to the increased demand for iron ore used for shipbuilding. The massive structures remain today and are owned by the Canadian National Railway.

Copper and iron were not the only minerals that were mined for the war effort. Limestone was a critical element in steel production and was found in the eastern Upper Peninsula. Algoma Steel, needing limestone for steel making had purchased the Fiborn quarry in 1910 and a year later installed a crushing plant having a capacity of 1,500 tons an hour, three locomotives and a considerable amount of new equipment. A company town was associated with the quarry. Now it could go into war production.¹⁹

Two other quarries were involved with the war effort. The Union Carbide plant owned the Hendrick's Quarry in the vicinity of Newberry, supplied the plant with all the limestone it needed. The Ozark Stone Products Company located at Ozark north of St. Ignace was formed in 1915. Its goal was to ship limestone by rail to St. Ignace to the south and then by ship to east coast ports.²⁰

Transportation Efforts: Land & Water

War demands caused a severe burden on both rail and water transportation. The short and mainlines from Duluth to Sault Ste. Marie played important roles in the movement of goods for the war effort as well.²¹ On December 28, 1917 the United States government took control of all

railroads through the U.S. Railroad Administration. An immediate effect was a substantial increase in wages. The Duluth, South Shore & Atlantic Railway known as the DSS&A benefited from the high traffic. In May 1917 the company called for loyalty from its workers and for them to reduce costs and increase efficiency. All cars were to be loaded to ten percent over stated capacity and every effort was to be made to avoid wasting travel over track and use all of the available equipment.²²

Large concentrations of grain moved from the Twin Ports and Thunder Bay eastward for shipment to Europe. The same was true for copper and iron that made it way to the steel mills of Sault Ste. Marie and the southern Great Lakes. By October 1917 some 45,000 tons of iron ore were loaded on the docks waiting for ships to arrive, but they had to wait for several weeks and some of the mines ceased operation.

From St. Ignace the railroad ferries, *Chief Wawaton* and *Ste. Marie* were continuously ferrying cars across the Straits of Mackinac. During the coal shortage of the winter of 1916-1917 the South Shore sent one hundred cars to the coalfields to help rail movement. Mackinac Transportation saw a coal movement of over 2,000 cars on its ferries in 1917 to alleviate the coal shortage at Algoma Steel. Despite all of this activity there were coal shortages.

To the west the Canadian Northern Railway entered Minnesota at Fort Frances with shipments of grain from the Canadian prairies. Millions of bushels of wheat and other grains ended up in elevators at Port Arthur and shipped through the Great Lakes to Europe. The subsidiary Duluth, Winnipeg & Pacific Railway also brought grain to Duluth, as did the Great Northern Railroad.

Coal Shortages

Locally the people had to deal with the coal shortage. In Duluth and Fort William and Port Arthur they had heatless days, which were strictly kept. This even went into three consecutive days without heat in February! In the middle of winter 1918, stores in Port Arthur were forced to close for three days in order to conserve coal.²³ Men and women were encouraged to dress appropriately and put aside their summer wear. In an effort to alleviate the coal shortage, a writer for the local magazine, *Clower-Land* in January 1918 noted that there were millions of acres in the Upper Peninsula if we can look beyond of stumps and windfall that could be used for fuel.

Prohibition of Alcohol

Provincial prohibition on the border began in 1916 with the Ontario Temperance Act. Since the late nineteenth century there had been a movement throughout Canada to create prohibition, especially by the pietistic Protestant churches, especially the Methodists. They received inspiration from the movement in the United States. In an interesting twist, alcohol could be imported and manufactured in the province, but could not be sold. Canadian national prohibition (1918-1920) was seen as a temporary wartime measure and as a patriotic duty and social sacrifice.

In the middle of World War I a social event took place with the start of Michigan prohibition on May 1, 1918. At that time liquor was not available in Michigan but it could be imported from Wisconsin where it was still legal and from neighboring Ontario to the north. Liquor entered into Michigan from Menominee-Marinette, Florence-Iron Mountain, and Hurley-Ironwood. Along the Lake Superior border rum running into Michigan after May, 1918 became a

major economic activity for Canadians.²⁴ Unrecorded rum running began from Fort William and Port Arthur on the west and from Sault Ste. Marie, Ontario across the St. Mary's River and through the North Channel to the east. As the years passed this northern route became an important entry point for liquor into Michigan that would be shipped south to Detroit and Chicago. The wild and isolation nature of the country allowed highly sought after British spirits to land with little opportunity to be intercepted by the law.

Industry & Electrical Power

Given the isolated location of the Lake Superior Basin, one would think that industry played a small or non-existent role in the war effort. However this is contrary to the reality of the story. Across the northern and southern shores of Lake Superior from Sault Ste. Marie to Duluth and Fort William and Port Arthur there were areas that played an important role in the industrial sphere, but this story has been ignored in the past prior for a lack of readily available information.

Before we can progress with the industrial development in the region we must look at the electrical power that was generated in the region. There are four important electrical power generating sites in the Lake Superior Basin: Kakabeka Generating Station in Thunder Bay, Edison Sault Power, the Grand Rapids Hydroelectric plant on the Menominee River, and the Great Northern Power hydroelectric plant on the St. Louis River at Duluth.

The Kakabeka Generating Station is a hydroelectric facility located nineteen miles west of Fort William-Port Arthur (now Thunder Bay) on the Kaministiquia River. Opened in 1906 by the Kaministiquia Power Company, it provided electricity to the aforementioned communities. As with other sensitive structure it came under special guard during the war.²⁵

At Sault Ste. Marie at the eastern end of Lake Superior is home to St. Mary's Falls Hydroelectric Plant whose Edison Sault Power Canal developed in 1898 feeds water power to the generation plant which was opened in 1902. Operating at full capacity it generates 25-30 megawatts.²⁶ Located in the city of Sault Ste. Marie it did not need special guard.

A little known power source is the Grand Rapids Hydroelectric Plant located eighteen miles up the Menominee River from Menominee-Marquette isolated and near the hamlet of Ingalls. Completed in 1910 this electrical complex provided some 6,000 horsepower. During the war it provided critical power to the Menominee-Marquette Light and Traction Company that created the plant, the numerous industries at Menominee-Marquette, and residential users. Any type of interference or destruction of this facility would negatively impact the war production of Menominee-Marquette.²⁷ The Michigan Constabulary guarded it.

The Twin Cities of Duluth and Superior needed a large electrical supply for industrial purposes. After a long struggle, construction on the Thomson Hydro Station on the St. Louis River was completed in 1907. It was primarily constructed for industrial use in the Twin Cities and on the Mesabe Range. With addition generating units placed in 1914 and 1918 it had the capacity of 48,000 kilowatts.²⁸

It must be remembered that the mining areas did not favor the introduction of industry that would take men away from the mines and mills. As a result in the Upper Peninsula industry was concentrated in non-mining locations or reasonably far from them to avoid labor competition.

The Western Dry Dock and Shipbuilding Company operated at Port Arthur, Ontario from 1911 to 1993 it was renamed in 1916 as the Port Arthur Shipbuilding Company. During the war it built a number of warships, two ocean freighters: *Blaamyra* and *Thorjerd* both launched in

1916. It also produced shells and munitions for the Imperial Munitions Board and in 1915 it also built Big Bull tractors.²⁹

The Canadian Car and Foundry more familiarly known as “Can Car” who’s main company was established in 1909 with the amalgamation of several companies. In the latter part of World War I, the expanding company opened a new plant in Fort William to manufacture rail cars and twelve “trawlers” or mine sweepers for the French government, which were launched between September and November 1918.³⁰

Three of the minesweepers: *Sebastopol*, *Inkerman*, and *Cerisoles* were christened on November 11, 1918. They began their maiden voyage across Lake Superior on November 23 and almost immediately encountered a ferocious blizzard with 50 mile an hour winds. As a sailor on the *Sebastopol* that survived the storm said, “We had to get out the life boats and put on lifebelts . . . the boat almost sank – and it was nearly ‘goodbye’ to anyone hearing from us again . . . You can believe me, I will always remember that day. I can tell you that I had already given myself to God.” Water poured into the *Sebastopol* flooded the engine and nearly put out the boilers’ coal fires. She survived a two-day pounding and finally arrived in Sault Ste. Marie. Earlier she had lost contact with the *Inkerman* and *Cerisoles* carrying 76 French sailors and two Canadian pilots, Captains R. Wilson and W.J. Murphy. A search was launched ten days after they left Fort Williams but due to wartime security the public did not know of the disaster. Soon after the Canadian and French governments discontinued the search for the lost ships. Their exact whereabouts, and fate remain unknown making it the greatest loss of life on a Lake Superior and the last warships so lost on the Great Lakes.³¹

Although there were other industries centered at Thunder Bay it would be difficult to talk about all of them. However one is presented because although it is a small company it provides

an interesting product for the war. Port Arthur Wagon Works & Implements Ltd. was established in 1912 and produced farm wagons. Over the war years the company was given government contracts to build special heavy wagons for the Canadian army and militia, which were shipped to France. On October 1, 1914 three days after receiving the first contract it shipped the first consignment. It was hoped that these wagons would be in the vanguard of a Canadian entry of Berlin.

In the Canadian Soo an industrial base had developed prior to the war. There were Lake Superior Paper Company, Algoma Steel Company, ferro-nickel plant, Algoma Central Railway railroad car shops, along with iron works, veneer mills, electro-chemical works, charcoal plant and saw mills.

Algoma Steel opened in February 1902 at Sault Ste. Marie, Ontario. In the beginning it produced rails. When the war broke out in 1914, the new company had financial difficulties as orders for rails were cancelled. By February 1915 the plant was given an order of considerable proportions and was rolling steel bars, which were made into shells for the British War Office. As the industry expanded there was a demand for more workers and several hundred were welcomed to the Soo. The company prospered and was able to pay its debts and developed a large cash reserve.³²

A bit out of the region under consideration was the small community of Nobel, named after Alfred Nobel, inventor of dynamite and located on Parry Sound to the east of Lake Superior. During the war it was home to two explosive factories making the smokeless gunpowder – cordite that was naturally in great demand. British Cordite Ltd. was built by the Explosive Department of the Imperial Munitions Board to produce cordite. It opened in late 1916 and was in production by mid-1917. It consisted of 366 acres and 155 buildings. By November

30, 1918 it had produced 21,450,000 pounds of cordite. Canadian Explosives Ltd., owned jointly by Du Pont of the US and Nobel Explosives of Scotland, opened in August 1918. It was built to produce 1.5 million pounds of cordite monthly.³³

In the American Soo the three major industries were the Soo Woolen Mills, Northwestern Tannery, and the Union Carbide plant. With the start of the war the woolen mills, under government contract, made blankets for the U.S. Army and by the end of the war had turned out 100,000. They were manufactured at the rate of 300 per day. They also produced medical corps blankets, which were of gray wool. Prior to beginning the work on these medical blankets, the woolen mills made regular khaki blankets for the Army. More than 10,000 yards of cloth for lining army vests were also manufactured. The mills turned out no other work than blankets since the first government contract was received.

With the end of the war Albert E. Cullis, manager of the mills could finally talk freely about the work of the mills without concern for security and “the danger of enemy sympathizers. He pointed out that the mills had “been an exclusive war works.” Now there was a great shortage in mackinaws, pants and shirts and the conversion from blankets to these items would easily be undertaken. During the war there were 65 employees at the plant and after the war more than a hundred were employed, as women were needed to tailor garments.³⁴

The Northwestern Tannery considered the largest tannery in the world was also an important producer of leather goods for the war effort. It processed 1,200 hides daily and its branch factory in Manistique produced half that number. In production, 65,000 square feet of leather per day made 26,000 pairs of shoes. Heavy cow, steer or bull hides made shoe soles, harnesses, collars, bag cases and straps and upholstery. Deer and horsehides were softer and used

for gloves. A variety of hides and skins were used for shoe leather. The immense works employed several thousand people.³⁵

Union Carbide was the third of the major war industries on the American side of the river. Using limestone from Hendrick's quarry it produced acetylene, which is necessary for many essential industries. Acetylene lit miners' headlamps and in connection with oxygen welds metal in shipbuilding, armor plate, and munitions industries. It was also utilized for signal lamps, searchlights, camp and tent lighting, and field cooking in military work. Union Carbide also produced ferro silicon, which was essential in the manufacture of nearly all-commercial forms of steel, including ship and armor plate. Every contract for shell steel that had been made since 1915 called for a content of ferro silicon. Without this commodity practically the entire steel industry of the country would have had to shut down.³⁶

Located between Ashland and Washburn, Wisconsin the E.I. Du Pont Dynamite Plant was established in 1904 and continued production until 1974. The factory produced dynamite for blasting stumps and mining demands. During World War I Du Pont expanded with wartime demand and the number of laborers rose from 600 to 6,000. Housing had to be found for these employees and families. Concern over sabotage caused the creation of 7-miles military fencing to be erected around the property that was guarded by six mounted and 21 walking police. During the war it produced 90,000,000 pounds of explosives and it became the largest dynamite factory in the United States.³⁷

In the vicinity of Escanaba there were surprisingly a number of war industry plants. The National Pole Company was producing telegraph and telephone poles, which were in demand. The Mashek Chemical & Iron Company became the Delta Chemical Company in 1914 and manufactured acetate of lime and wood alcohol both of which were used in high explosives.

Even prior to the war the company produced 30 percent wood alcohol and 60 percent of acetate of lime, which was exported abroad for use by the British army. They could manufacture a thousand gallons of alcohol and seven tons of acetate of lime working day and night on a daily basis. The Ford River Lumber Company located west of Escanaba besides producing timber, shingles and laths shipped out 600,000 railroad ties and poles and over 3,000 cords of wood for pulp and chemical purposes. In nearby Gladstone the Northwestern Cooperage & Lumber Company had hundreds of men cutting timber and processing the wood into barrels and casks needed for shipping.³⁸

Wilson Marble established the Marble Arms Company located in Gladstone, Michigan in 1887. Over the years he developed sixty patents for outdoor goods - gun sights, safety waterproof watch boxes, hunting knives, axes, compasses, safety guards for axes and many smaller items. In 1902 the British army adopted Marble's safety packet for matches and in 1916 the British government bought Marble hunting knives for army issue. United States Army trucks were equipped with Marble compasses as early as 1914. Individual servicemen, who were familiar with the high quality of Marble's products, bought them for use in the war.

With the significant decline of the logging and milling boom in the early 20th century, Menominee-Marinette became a leading industrial center in the Upper Peninsula. Menominee was home to food production vital to the war effort. The Carpenter Cook Company was a major provisionary for the region. There were canning companies that turned out a variety of fruits and vegetables. The fishing industry was thriving, as was the dairy industry. The Menominee Motor Truck Company was producing heavy half ton, one ton and two half-ton trucks. In late June 1918 three 2-ton trucks each loaded with a one-ton truck and a 2 1/2-ton truck carried bodies of one-

ton trucks from Menominee to Maryland – 1,200 miles. The Motor Transport Corp based at Camp Hocabird near Baltimore had ordered these trucks that were shipped to France.³⁹

Lumber was still produced along with wooden boxes and paper products. Tools, electrical and radio equipment, boilers and many other technical products were manufactured.⁴⁰ All of these products were needed in the war effort as small as they might seem.

Menominee was also home to the Menominee River Sugar Company established in 1903 and developed into one of the largest sugar mills in the United States. Sugar was considered an essential food for the troops whose caloric intake could be as high as 4,000 calories per day. Also there was a great demand for sugar in Britain and France.

With the start of the war sugar beet seed, which had been perfected in Germany and exported to the United States was cut off. Seed was shipped from eastern Russia, hard pressed for foreign currency and shipped by the Trans-Siberian Railroad to the Pacific and made its way to Menominee. With the end of the war Russia wanted its seed back and the process was put into reverse.

In February 1918, George W. McCormick, assistant food administrator in Michigan and general manager of the Menominee River Sugar Company addressed a group at the annual grain show in Green Bay. He urged the attendees to raise more sugar beets and to forestall the danger of sugar beet famine as nearly occurred in 1917 at his plant. Farmers in Brown County would have to plant 1,800 acres of beets to meet the demand; prices had been boosted to a new high of \$10 per ton; and eleven tons could be produce on an acre. During the war the sugar plant operated at full capacity.⁴¹

At North Marquette, the Cleveland Cliffs Iron Company began operating the Pioneer (forerunner of Cliffs-Dow) charcoal and blast furnaces in 1903. By the time of the war the

distillation plant was producing wood tar/creosote, acetic acid, methyl alcohol, acetone, formaldehyde, and lime acetate from wood gathered in CCI's vast forest reserves. These chemicals were also important in the war effort.⁴²

U.S. Steel incorporated Duluth West/Minnesota Steel Company opened in 1907. It was 70 miles from the largest iron ore source in the United States, the Mesabi Iron Range. The plant opened in 1915 and was ready to provide steel for local shipbuilding during the war. Worker housing, a model community was established next to the plant and was known as Morgan Park.

Alexander McDougall and his sons A. Miller had established The McDougall-Duluth Shipyard with two locations in 1916. Construction began early 1917 and despite labor shortages and bad weather the first vessel was launched in February 1918. The shipyard constructed a large fleet of freighters and steamers for the lake and ocean trade over seen by the US Shipping Board Emergency Fleet Corps. Its yard at Riverside turned out thirty-seven vessels and employed 35,000 men. In order to house this large working population it created a company town, Riverside. It was well planned and consisted of a school, hotel, movie theater, stores, post office, a bank and many blocks of residential housing.⁴³

Superior, Wisconsin located across the bay from Duluth was home to two shipbuilding companies during World War I. Superior Shipbuilding Company was established in 1900 and during the war built 25 freighters for Britain, France and the United States. Globe Shipbuilding Company was operational during World War I. The ships were also built under the authority of the United States Shipping Board.

There were smaller industries in the Lake Superior Basin that aided the war effort. The region covered with timber was crisscrossed with mills and wood distilleries. Calk horseshoes were made in Duluth. With the availability of electrical power in 1908 the American Carbolite

Company was established in Duluth. Within two years 300 workers could produce 200,000 pounds of carbolite daily to provide 12 million cubic feet of acetylene-type gas.

Grain

The war produced a great demand for wheat and other grains. The Prairie Provinces and the Great Plains shipping it by rail to the Lakehead ports of Port Arthur and Duluth. In the fall of 1915 with the harvest underway, thirty-five cars per day loaded with wheat passed through Virginia, Minnesota on Canadian Northern Railway headed for Port Arthur. When elevators filled and there was a concern for the close of navigation for the winter, shipments were sent via Duluth, Winnipeg & Pacific Railway to Duluth.⁴⁴

Protection from Radical Elements & Spies

In Grand Rapids a newspaper questioned the loyalty of the sons of immigrant parents who might have to restore “order” among striking immigrant laborers. Would they fire on their compatriots? There was also the security problem of not having the federalized National Guard to protect the citizenry. As a result of this concern the Michigan Constabulary; the forerunner of the Michigan State Police was created in April 1917 soon after the declaration of war.

The International Workers of the World (IWW), a radical labor union actively campaigned against the war. In the Upper Peninsula and in other mining areas, many of its members were immigrants and especially Finn socialists who were opposed to the war as a rich man’s war to make money. They actively protested and interfered with Army recruiting and were promptly arrested. Others called for strikes to disrupt the production efforts of the mines. The major questions were: would the immigrants take an anti-war position and cause internal

problems in the Upper Peninsula? The Michigan Constabulary maintained two small units of about twenty-four men in Negaunee and Ironwood. They could use the railroad for fast deployment to a trouble spot. There was one attempted labor strike on the Gogebic Iron Range but it was quickly stopped by the professional action of the Constabulary. In Palmer, someone dynamited a flagpole and 3 members of the constabulary were sent to investigate. They found the community, consisting of French-Canadians, Cornish and Finns, totally against the action and pro-war and the matter was soon forgotten.

Wireless radio stations were a new feature at the outbreak of World War I. Since 1907 wireless stations had been established at Sault Ste. Marie and two years later at Port Arthur and railroad and amateur stations were established. With the outbreak of the war it was feared that the enemy or sympathizers would gain access to this potential weapon. In August 1914 two gunmen fired at the radio staff and temporarily wrecked the Port Arthur station. At Sault Ste. Marie, Ontario H Company of the 51st Soo Rifles did guard duty at the main wireless station. Across the Upper Peninsula all non-government wireless stations were closed and dismantled under government orders, again concerned with sabotage.⁴⁵ At the same time the government opened a centralized station at Tamarack Junior Location, close to Calumet and took over the wireless station of the Ann Arbor Railroad at Manistique.

Scattered across the south shore of Lake Superior at Duluth, Ashland, Marquette, and Escanaba on Lake Michigan were iron ore docks. This became a concern when it was learned German saboteurs planned to destroy the Welland Canal.

Reality hit. Trouble brewed at the Soo Canal in May 1917. A fire broke out at the end of the Fort Brady pier killing six men and injuring several others. Luckily the Coast Guard cutter, *Mackinac* was at some distance from the explosion, which saved her from destruction. However

such incidents though unsubstantiated as sabotage through military investigate put civilians and the military on alert.⁴⁶

Even before the United States entered the war, precautions were taken to protect vital transportation facilities. In late 1916 the Oliver Mining Company in Ishpeming was the first mining company in the district to organize a police force to guard the mines and access. Cleveland Cliffs Iron Company and Pickands-Mather followed up in early December. Early in March 1917, weeks before the declaration of war, the Lake Superior & Ishpeming Railroad carrier of iron ore from the interior mines to Marquette's ore docks was concerned about its docks and bridges. The Presque Isle dock was illuminated and guarded and the high railroad bridge over the Dead River was also under guard. Similar precautions were taken across the southern shore of Lake Superior at Ashland and Duluth.⁴⁷

In Menominee the 33rd Michigan Regiment, Company I was established. On April 13, 1917 sixty men and three officers arrived in Escanaba to do guard duty at the ore docks. Here and elsewhere soon afterward local civilian security guards replaced these National Guardsmen.⁴⁸ In both Canada and the United States many of these sites, first guarded by military units were taken over by local hired security guards. At the Straits of Mackinac there were strict guard patrols of the ferries in place at the onset of the war.⁴⁹

Members of the Menominee County Council of Defense joined by Edward Daniel, general manager of the Light and Traction Company met to discuss the vulnerability of the power plant to sabotage. From an unmentioned source they learned that certain officers and members of the I.W.W. on the Mesabi Range in Minnesota had taken an interest in the facility. It was understood that agents of the I.W.W. had been in the Twin Cities in the past two months and that now they had in their possession drawings and photos of the dam, its sealed dikes covering

an area of more than two miles, and the power plant. Furthermore, they gathered information about the manufacturing industries and the impact of putting them out of commission or crippling them by destroying the dam.⁵⁰

The Council phoned Governor Albert Sleeper and advised him of the imminent danger this industry with a 75-80 percent war capacity was facing.⁵¹ They also said that they would send a detailed letter explaining the location of the dam, how it could be destroyed and the untold havoc that would result to the industries. Even before he received the letter and still on the phone Sleeper said that he understood the danger and the matter would get his undivided attention.

Governor Sleeper, ever concerned about internal within the state of Michigan contacted Captain Robert Marsh, commanding a detachment of the Constabulary in Negaunee. At the time the governor contacted Marsh, he and a squad were on an inspection tour of the Upper Peninsula. Marsh and his men were directed to assume permanent guard duty at the Grand Rapids Hydroelectric complex.

When Marsh received his orders he notified the Northwestern Railway agent that a special car containing the horses and equipment were needed the following morning. The troopers could entrain on the regular passenger train. The agent told Marsh that it was impossible to attach a special car to the passenger train. In reply Marsh said that if the horses and baggage did not leave with the train the train itself would not leave Negaunee. The agent quickly notified his superiors in Chicago and the passenger train departed the next morning with the car of the Constabulary horses and equipment attached.⁵²

The squad of twelve men arrived at Ingalls and then traveled the two and a half miles to their destination, the Grand Rapids hydroelectric facility on the Menominee River. They were quartered in a farmhouse owned by the Traction Company a short distance from the dam. In this

isolated location they would be able to give prompt service should an attempt be made to destroy the dam. They were successful in their duty, which has been all but ignored in history.

Although the constabulary was active to contain the violent behavior of the IWW there were less obvious problems, which were based on sabotage. The Pioneer Iron Furnace was distilling alcohol for industrial and munitions use. Suddenly an explosion and fire broke out, which did extensive destruction to the plant. The refining plant, a primary building and a series of condensers were destroyed, which amounted to a \$100,000 loss. Within a week two U.S. Secret Service agents arrived in Marquette and spent several days investigating the explosion.⁵³ Several weeks later the packing room of the Aetna Powder Company at Winthrop Location mysteriously exploded. As with the earlier explosion there were no men on site and fatalities were avoided. In this case the entire building was demolished.⁵⁴

The concern with national defense made photography a national issue. Photographing a vessel, dock yard, pier, river front property, wireless station or other site connected with defense without permission could bring you a two year prison sentence and a \$10,000 fine.⁵⁵

Not Over Till Its Over

As a war was drawing to a close and nearing its final days, men from the Lake Superior Basin found that they were on a new mission. The Allies – Britain, France, United States and Japan – planned to intervene in the Russian Revolution. It was hoped to defeat the revolutionary Bolsheviks, get Russia back into the war and hopefully end the Bolshevik threat to the world. As a result the American Expeditionary Force known as the Polar Bear Expedition of 5,000 men was sent to Archangel in North Russia. At the same time the Canadian Siberian Expeditionary Force of 4,200 men sailed across the Pacific from Vancouver to Vladivostok. Both expeditions

lasted from the latter part of 1918 into the summer of 1919. They joined the White Russians against the Revolutionary Reds, but never realized their objectives. The casualties consisted of: 24 Canadians and 226 Americans of which two thirds were from Michigan. Both Americans and Canadians from the Basin served in these expeditions.⁵⁶

Spanish Influenza

The war came to an end in 1918 on the 11th month, on the 11th day on the 11th hour. Although the region was in the midst of a pandemic – the Spanish flu, was overwhelming joy that this terrible conflict had come to an end. The mayor of Marquette like many other mayors, declared an impromptu holiday for the day and the populace celebrated.

However although the war was over the world, the Lake Superior region had to face the pandemic of Spanish influenza or flu. The flu probably began in China, since at the height of the epidemic there were few cases in China since the disease had passed. More people died of the flu worldwide – 38 million – than died in the war. The hardest hit were those in the 30-45 year range of healthy conditions.⁵⁷

The flu did not appear until mid- to late-1918 and was highly communicable caused by a virus. The flu reached and spread through the region by the numerous transcontinental railroads, shipping lines and visiting travelers and returning veterans. Furthermore, its spread was aided by a cold and damp September, a depleted coal supply that kept furnaces cool, and a depleted nursing and medical staff. It struck in three outbreaks: 1) October to December 28, 1918, 2) December 28, 1918 to March 8, 1919 and 3) March 17 to May 17, 1919.

As the pandemic approached and settled in local officials took measures to quarantine their cities. Schools, churches, dance halls, billiard and pool halls, bowling alleys, theaters

(music or concerts) - public or places gatherings and amusement were closed. All meetings were prohibited. The list could be extended. At Sault Ste. Marie ferry service across the St. Mary's River was suspended.

Although the Upper Peninsula was not hit as severe as some cities and areas of the United States, many people were sick and some of them succumbed to the awful killer disease or pneumonia, as there was no treatment or vaccine. The flu crossed international boundaries at will and hundreds in Port Arthur, Fort William, and Sault Ste. Marie, Ontario and surrounding communities were stricken. Some veterans returned home to find the wife dead and the children ill. In Port Arthur a funeral was held for French Marines who died in the city.⁵⁸

Throughout the area the newspapers carried ads for a variety of "remedies". There was PE-RU-NA in liquid and tablet form, Dr. Edwards' Olive Tablets or Dr. John M. Mayhew's A-K Tablets. Nutritional supplements – Cowan's Cocoa, Fruit-a-tives – were promoted. One Canadian store promoted purchasing photographs and records so that you could stay indoors and avoid the flu.

In Marquette between October 1918 and June 1919 there were 1,759 cases and 51 deaths due to the flu. In January 1919 Samuel Magers, a biology professor at Northern Normal School died of pneumonia and was the only member of the faculty or students to fall victim to the flu. The flu continued on an intermittent basis through early 1920, but then it disappeared almost as rapidly as it had appeared. Typical of pandemics, people like to forget about them. As a result, little mention has been made of this terrible world tragedy until recent years.⁵⁹

William "Bill" Merrifield (1890-1943) of Sault Ste. Marie was northern Ontario's only Victoria Cross recipient. This is the highest honor that the British Empire can award to an individual, given for gallantry in the face of the enemy. It is awarded to British and

Commonwealth forces. He joined the Canadian army soon after war was declared in 1914 and served in France. On October 1, 1918 during the battle of the Canal du Nord/Cambrai he was shot four times as he single-handedly took out two German machine gun emplacements and continued fighting after being wounded. King George V awarded him the Victoria Cross on January 27, 1919 at a dinner and ceremony. Over the years this humble man met members of the royal family. He returned home to Sault Ste. Marie on May 9, 1919 and worked on the Algoma Central Railroad as an engineer. A public elementary school in Sault Ste. Marie (1946-201) was named after him by the Algoma District Board. And the Merrifield Outdoor Rink is located at the corner of Henrietta and Patrick Streets in Sault Ste. Marie. Upon his death his family donated the Victoria Cross and other medals that he was awarded to the Canadian War Museum in Ottawa.

Honoring the Fallen

As veterans returned various organizations were created in both countries. The Great War Veterans Association was formed in Canada in 1917 to deal with returning veterans. The American Legion was chartered and incorporation by Congress in 1919 as a patriotic veterans' organization devoted to mutual helpfulness. Units of both organizations formed throughout the Basin.

In Canada the Memorial or Silver Cross was instituted by Order-in-Council #2374 on December 1, 1919. It was presented to mothers or widows of those killed in the war or war-related activity. These crosses are found among families throughout Ontario bordering Lake Superior.

Thunder Bay has a connection with making the red poppy the symbol of remembrance for soldiers killed in the war. In 1921, Anne E. Gu erin, a French woman traveled to Britain and Canada to try to accomplish this remembrance. In Canada she attended a meeting of the Great War Veterans Association of Canada (now Canadian Legion) held in Thunder Bay's Prince Arthur Hotel. On July 4 at the meeting, the members decided to adopt the poppy as its "Flower of Remembrance." They were first distributed on November 11, 1921. A plaque at the hotel commemorates this event and veterans groups from Minnesota and Wisconsin have their pictures taken at the plaque.

Sault Ste. Marie, Ontario is the site of the Cenotaph in front of the courthouse. The citizens suggested that there should be a memorial to honor the war's casualties. Toronto's Alfred Howell designed the memorial, entitled "Triumph of Right over the God of War." The process began in 1923 and took several years to completion. In the process, J.W. Curran, editor of the *Sault Star* wrote a very convincing letter to the famous British poet, Rudyard Kipling to write an inscription. Kipling who had lost a son in the war responded and his words follow:

From little towns, in a far land we came,
To save our honour and a world aflame;
By little town, in a far land, we sleep,
And trust those things we won
To you to keep.
Rudyard Kipling, 1925

Inscription on Cenotaph
426 Queen Street East, Sault Ste. Marie
The names of 350 Great War dead appear on the Cenotaph

It is hoped that this small endeavor will be seen as a commemoration of World War I and a tribute to the men and women who serviced in the military or at home to help the Allies win the war.

¹ *The New North* (Rhineland, Wisconsin) 05-31-1917, 07-12-1917, 09-13-1917; special retrospective issue of: *American Forestry* 25 (June 1919).

² *Duluth News Tribune* 02-24-1918; 05-18 and 20-1918; *Ironwood Times* 09-29-1917; *Mining Journal* 04-15-1916.

³ *The Cook County News-Herald* March 6, 1918; *Fort William Daily Tribune Journal*, February 13, 1918; *Duluth News Tribune*, June 15, August 16, August 23, 1917.

⁴ *Ironwood Times*, 01-12-1918, 12-07-1918, 12-14-1918, 12-21-1918, 12-28-1918, 01-04-1919; *Marquette Mining Journal*, 01-26-1918,

⁵ *The Labor World*, 02-23-1918; *Star-Tribune* (Minneapolis, Minn.) 02-20-2918.

⁶ *Port Arthur Daily News Chronicle* 09-17-1914, p. 6 and 12-19-1914, p. 2.

⁷ *The Cook County News-Herald* November 19, 1917; *Calumet News* 10-02-1918.

⁸ *The Cook County News-Herald* 05-09-1917.

⁹ *Evening News* (Soo) 05-30-1916.

¹⁰ *Evening News* (Soo) 03-22-1917.

¹¹ *Clover-Land* 5:2 (May 1917).

¹² *Ibid.* pp. 135-36.

¹³ In 1917 the Michigan mines had the following production: Gogebic Range 7,003,838 tons; Iron County 3,980,408 tons; Dickinson County 1,975,096 tons; Marquette Range 4,771,305 tons and Baraga County 108,901 tons. *Mineral Resources of Michigan . . . for 1917 and Prior Years. Michigan Geological and Biological Survey Publication 27.* Fort Wayne, Ind.: Fort Wayne Printing Company, 1917, p. 93.

¹⁴ *Ironwood Times* 02-15-1919; *Iron Trade Review* 01-10-1918; James F. Shefchik. "Algoma Ore: The Helen and Magpie Iron Mines," *Upper Country: Journal of the Lake Superior Region* 2 (2014): 17-22.

¹⁵ Frederick E. Sutherland. "The Cuyuna Iron Range: Legacy of a 20th Century Industrial Community." Ph.D. dissertation, Houghton: Michigan Technological University, 2016, p. 119.

¹⁶ *Brainerd Daily Dispatch* 02-03-1917, 03-03-1917, 07-10-1917, 08-17-1917.

¹⁷ *Mineral Resources for Michigan . . . for 1917*, pp. 15-16. As a by-production of copper milling silver was also produced. C. Harry Benedict. *Red Metal: The Calumet & Hecla Story.* Ann Arbor: University of Michigan Press, 1952, pp. 114, 158, 242,

¹⁸ Larry Lankton. *Hallowed Ground: Copper Mining and Community Building on Lake Superior, 1840s-1990s.* Detroit, Mich.: Wayne State University Press, 2010, pp. 219-220 and 227.

¹⁹ *Evening News* 07-24-1915

²⁰ *Evening News* (Soo) 12-15-1917, 12-21-1917, 01-03-1918, 06-19-1918, 02-20-1915.

²¹ John T. Gaertner. *The Duluth, South Shore & Atlantic Railway: DSS&A, A History.* Bloomington, Ind.: Indiana University Press, 2009, pp. 197-199.

²² *Daily Mining Journal* 05-01-1917, 05-28-1917.

²³ *Evening News* (Soo) 10-15-1917; *News-Chronicle* (Port Arthur) 02-07-1918.

²⁴ Brian Tennyson. "Sir William Hearst and the Ontario Temperance Act," *Ontario History* 55:4 (December 1963): 233-45.

²⁵ Roma Kopechanski. "Kakabeka Falls: A Century of Reliable Operation," *Hydro Review* (October 2006) www.hcipb.com. Retrieved 12-17-2017.

²⁶ Cy Warman. "The Giant Growth of the 'Soo'," *American Monthly Review of Reviews* 26 (December 1902): 689-93.

²⁷ The following section is based on: *Escanaba Morning Press* 11-13-1917.

²⁸ Dwight E. Woodbridge. "Hydro-Electric Power at Duluth," *The Iron Age* 81 (01-02-1908): 15-20; W.N. Ryerson. "Uniform Load Approach by Bulk Supply," *Electrical World* 67 (03-25-1916): 697-700.

²⁹ *Port Arthur Daily News* 05-20-1915, 08-14-1915; Western Dry Dock and Shipbuilding Company. Retrieved 12-17-2017.

³⁰ The minesweepers named after French victories were: *Narvain, Mantoue, St. Georges, Leoben, Palestro, Lutzen, Bautzen, Inkerman, Cerisoles, Sebastapol, Malakoff, and Seneff.*

³¹ Frederick Stonehouse and Konnie L. May. "Unsolved Mysteries of the Lakes," *Lake Superior Magazine* (11-01-2006; and Diane Robnik. "New Light on 1918 Minesweeper Mystery," Thunder Bay Historical Museum Society, *Papers and Records XLII* (2014): 3-15; Mark Bourrie. "Treasure Hunters Seek Lake Superior Holy Grail," *Toronto Star* 10-18-2009; Retrieved 12-11-2011.

³² Duncan McDowall, *Steel at the Sault: Francis H. Clergue, Sir James Dunn, and the Algoma Steel Corporation 1901-1956*. Toronto, Ont.: University of Toronto Press, 1988, pp. 50-68; Donald Kerr. "The Geography of Canadian Iron and Steel Industry," *Economic Geography* 35:2 (April 1959): 151-63; *Evening News* (Soo) 02-06-1915.

³³ See: David Carnegie. *The History of Munitions Supply in Canada, 1914-1918*. London, New York: Longman, Green & Co., 1925.

³⁴ *Evening News* (Soo) 11-15-1918.

³⁵ *Evening News* (Soo) 12-20-1915, 05-09-1922.

³⁶ *Evening News* (Soo) 06-19-1917.

³⁷ Lars Erik Larson with Barbara A. Larson. *Chequamegon and Its Communities III. A History of the Barksdale Works, The E.I. Du Pont De Nemours & Company, 1904-2004*. Whitewater, Wisc.: No publisher, 2010, pp. 23-30.

³⁸ Alvah L. Sawyer. *A History of the Northern Peninsula of Michigan and Its People*. 3 vols. Chicago: 1911, pp. 373-75; Richard Anzalone. "The Delta Chemical & Iron Company," *The Delta Historian* 46:2 (June 2018): 7-13.

³⁹ *Detroit Free Press* 07-04-1918 and 09-14-1919.

⁴⁰ *31st Annual Report of the Department of Labor of the State of Michigan*. Lansing: State Printers, 1914, pp. 126-27.

⁴¹ *Green Bay Press-Gazette* 02-25-1918.

⁴² E.J. Hudson. "A Brief Description of the Distillation of Hardwood as Practiced by the Cleveland-Cliffs Iron Company, Marquette," *Lake Superior Mining Institute* vol. 22 (1922): 168-176.

⁴³ Matthew L. Daley. "Duluth's Other Company Town, The McDougall-Duluth Company Riverside and World War I Shipbuilding," *Minnesota History* (Spring 2013): 177-89; *Star-Tribune* (Minneapolis, Minn.) 02-26-1918.

⁴⁴ *Virginia Enterprise* October 8, 1915.

⁴⁵ *Escanaba Morning Press* 04-19-1917; *Detroit Times* 04-03-1917.

⁴⁶ *Colorado Springs Gazette* 05-17-1917.

⁴⁷ *Weekly Mining Journal* 03-03-1917; *Clover-Land* 5:2 (June 1917); *Mining Journal* (Marquette, Mich.) 12-05-1916

⁴⁸ *Escanaba Morning Press* 04-13-1917.

⁴⁹ *Evening News* (Sault Ste. Marie) 04-13-1917.

⁵⁰ Another element that was not alluded to was the fact that Menominee was home to a large population of German and Bohemian immigrants, whose loyalty was never openly questioned, but in the minds of officialdom was there a concern?

⁵¹ This information concerning wartime capacity was provided by surveys of the U.S. marshal in establishing prohibited war zones for alien enemies without permits.

⁵² Michigan State Constabulary Association. *A History of the Michigan State Constabulary*. Detroit: Michigan State Constabulary Association, 1919, p. 111.

⁵³ *Negaunee Iron Herald* 02-01-1918, p. 1; 02-08-1918, p. 9

⁵⁴ *Negaunee Iron Herald* 04-26-1918, p. 8.

⁵⁵ *The Evening News* 09-13-1918.

⁵⁶ Joel R. Moore, Harry H. Mead and Lewis E. Jahns. *The History of the American Expedition Fighting the Bolshevik*. Nashville, Tenn.: The Battery Press, 2003; Gaddis Smith. "Canada and the Siberian Intervention, 1918-1919," *American Historical Review* 64:4 (July 1959): 866-77; Ian C.D. Moffat. "Forgotten Battlefields: Canadians in Siberia, 1918-1919," *Canadian Military Journal* (Autumn 2007): 73-83

⁵⁷ For an excellent overview of the pandemic see: Catherine Arnold. *Pandemic 1918: Eyewitness Accounts from the Greatest Medical Holocaust in Modern History*. New York: St. Martin's Press, 2018; for local accounts see: Steven B. Burg. "Wisconsin and the Great Spanish Flu Epidemic of 1918," *Wisconsin Magazine of History* 84:1 (Autumn 2000): 36-56; Curt Brown. *Minnesota 1918: When Flu, Fire and War Ravaged the State*. St. Paul: Minnesota State Historical Society Press, 2018; Kyle Whitney. "In 1918-19 Spanish Flu Killed . . . Many in

Superiorland,” *Mining Journal* 01-29-2013; Elizabeth A. Ilers. *Ask the Grey Sisters: Sault Ste. Marie and the General Hospital, 1898-1998*. Toronto, New York & Buffalo: Dundum, 1998, pp. 55-56.

⁵⁸ Three excellent sources for information on the flu in Canada are: *News-Chronicle* (Port Arthur) the *Daily Times Journal* (Fort William) and the *Sault Star*.

⁵⁹ *Clover-Land* 5:3 (July 1917).