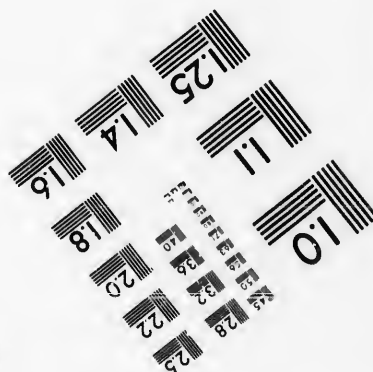
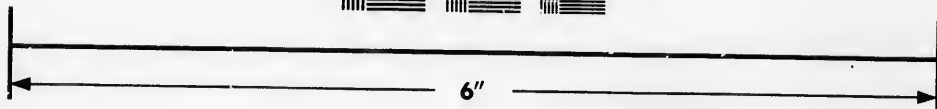
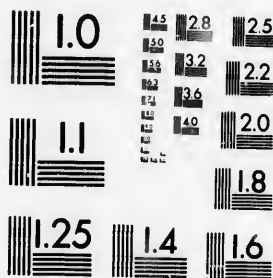


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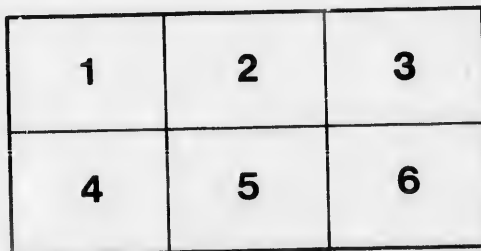
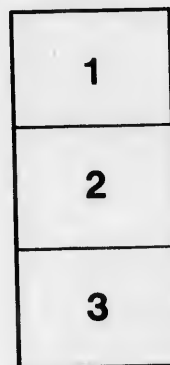
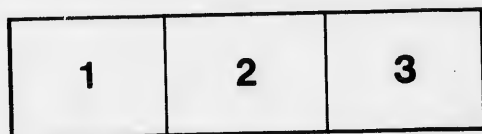
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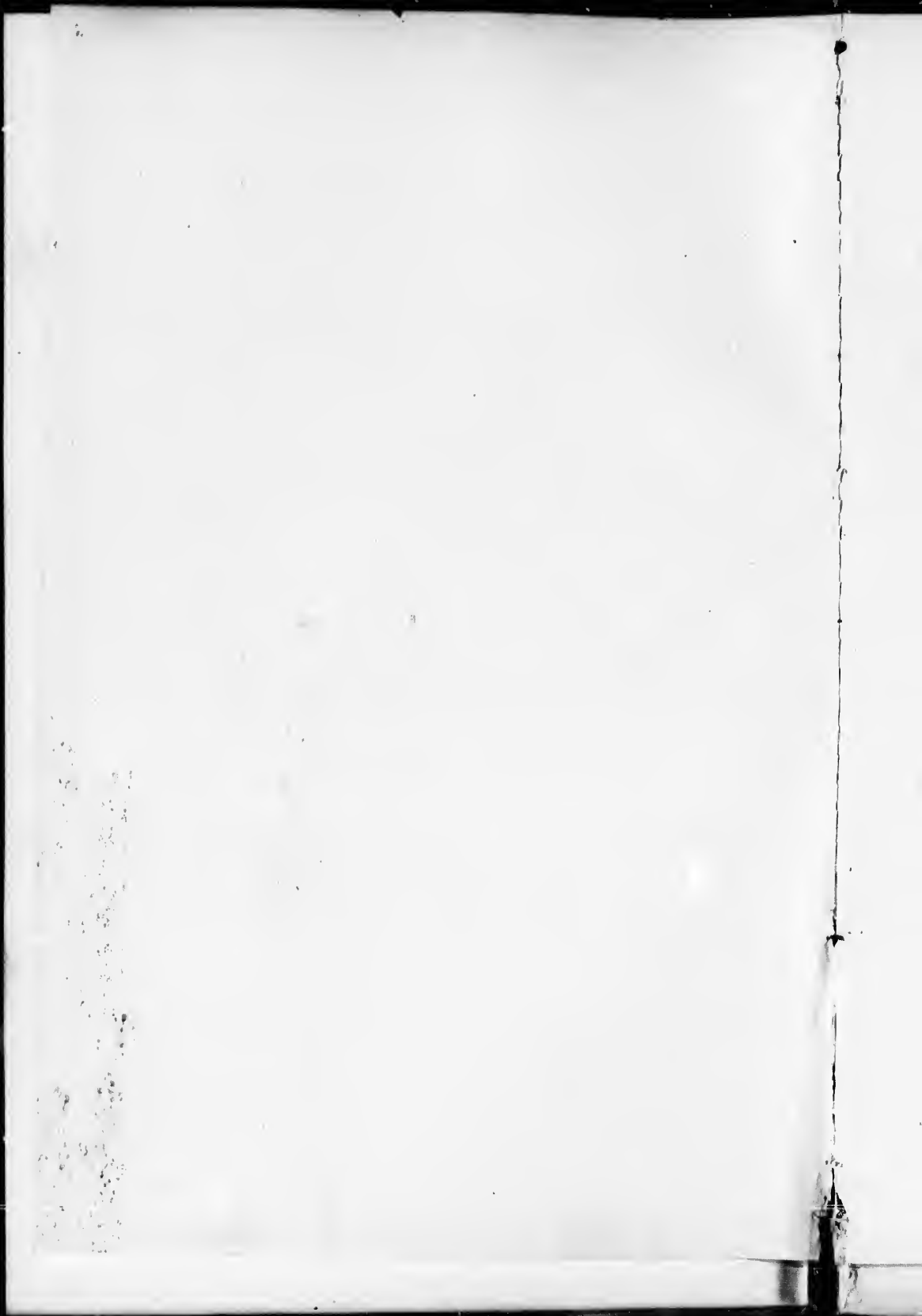
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HISTORY

OF THE

Sault Ste. Marie Canal

BY

DWIGHT H. KELTON,

CAPTAIN U. S. ARMY.

AUTHOR OF ANNALS OF FORT MACKINAC. INDIAN NAMES OF PLACES NEAR THE
GREAT LAKES.

CORRESPONDING MEMBER OF THE WISCONSIN STATE HISTORICAL SOCIETY,

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1888.

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Latitude 46° 30' 10" North.

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HISTORICAL SKETCH.

Father Dablon named the mission established by him at the foot of the rapids in 1668, *Sainte Marie du Sault*, "Saint Mary's of the Rapids." *Saut*, is the modern spelling; "*Soo*," the popular pronunciation.

From the word *Saut*, "falls," or "rapids," the Ojibwa tribe obtained its French name, *Sauteux*. At first, those only whose home was at the "*Soo*" were called by that name; but by degrees it passed to all Indians of the same speech. The spelling "*Sauteur*," though very common, is wrong; this word is pronounced differently and denotes "a springer," or "a jumper."

The Indian name of the town or rapids is *Bawiting*, from *bawitig*, "rapids." This is an abbreviation of *bawitigweya*, "the river is beaten into spray." (Some Indians pronounce it *bagwiting*, "where the river is shallow.")

The Ojibwa band residing at the *Saut* were called *Bawitigówininiway*, or *Bawiting dázhí-iníniway*, "Men of the Rapids."

The Indians have no general name for St. Mary's River; but have for the lakes into which it expands. The mouth of the river is called *Girwideoonaning*, "where they sail around a point."

Pawtucket, *Powatan*, *Pawcatuck*, *Pawtuxet* (Ojibwa *Bawitigosing*, "at the little falls"), and many other similar names in different dialects, are of the same root as *bawitig*, and denote a fall or rapids. The root is *baw*, "to scatter by striking."

Lake Superior is 602 feet above the level of the sea.

The only water-way between Lake Superior and the lower lakes is the Saint Mary's River, which flows from Lake Superior at its eastern extremity, and empties into Lake Huron 37 miles east of Mackinac Island. The channel between the two lakes is about 75 miles long, and was, before improvement, obstructed in many places, but especially at the Rapids of Saint Mary, 15 miles from the head of the river. In their natural state these rapids formed a barrier to transportation by water, and made a portage necessary.

The fall of the river from Lake Superior to the rapids of St. Mary is one tenth of a foot; in the half-mile stretch of these rapids the fall is 18 feet; and from the foot of the rapids to the Lake Huron level, which is reached at Mud Lake, 35 miles below, the fall is 2.3 feet.

In 1837, the governor of the newly admitted State of Michigan called the attention of the State legislature to the advisability of constructing a canal around the rapids at Sault Ste. Marie, and three years later the subject was brought up in the United States Senate. In spite of violent opposition a survey was ordered, which was made by officers of the Topographical Engineers, U. S. Army. In 1852, a grant of 750,000 acres of public land was made to the State of Michigan, from the proceeds of which the canal was to be built.

The grant was attended with the conditions that the canal be at least 100 feet wide and 12 feet deep; the locks at least 250 feet long and 60 feet wide; that work be begun within three years and finished within ten; that tolls be limited to the amount necessary to keep the canal in repair, after the expenses of construction had been paid; that Government vessels be free of tolls; and that the donated land should not be sold until the location had been established and filed.

The State accepted the conditions and the grant, and handed the latter over to a private company, which undertook to build the canal for the proceeds of the land.

OLD CANAL AND LOCKS.

(1855.)

Ground was broken for the work on June 4, 1853. The certificate of its completion was signed by the commissioners on May 21, 1855. The first boat, the steamer Illinois, Captain Jack Wilson, was locked through on June 18, 1855.

The canal was 5,400 feet long, 100 feet wide, and 12 feet deep at an average stage of water. The banks had a slope of 1 vertical to 2 horizontal, and were revetted with stone except in rock cuttings.

The locks were at the eastern or lower end, and were two in number, placed one in immediate prolongation of the other. Each lock was rectangular in plan, 350 feet long by 70 feet wide and 24 feet 8 inches deep, with a depth of $11\frac{1}{2}$ feet of water over the miter-sills, and a lift of 9 feet. The capacity of each lock was 281,750 cubic feet.

The walls were of cut limestone from Marblehead, Ohio, and Malden, Ontario, backed with stone from Drummond's Island, Saint Mary's River.

Water was admitted to the locks through openings in the leaves of the upper gates, by means of butterfly valves. The valves were worked with a rack and pinion. Seven minutes were required to fill the upper lock-chamber, and fourteen to fill the lower. The volume of water in the upper lock when filled to the level of the canal above, amounted to 3,757,000 gallons. The water was let out of the locks by means of valves in the lower lock-gates. Fourteen minutes were required to empty each lock-chamber. Five minutes were required to open or close the lock-gates. The gates were operated by means of a boom, worked by a hand-capstan.

The dimensions of the locks permitted the passage at one time of a tug and three vessels of the size then usual.

There was a guard-gate of the ordinary mitering pattern 2,100 feet above the upper lock-gates.

The original survey was made by Capt. Augustus Canfield, Topographical Engineers, U. S. A.

The entire cost of the canal was \$999,802.46.

The last boat, the steam tug Annie Clark, Captain Edward Martin, was locked through Nov. 2, 1886.

CANAL IMPROVEMENTS AND NEW LOCK.

(1881.)

The first contract for the improvement of the canal, which resulted in its enlargement and the building of the lock of 1881, was dated October 20, 1870; the first stone of the lock (the largest ship canal lock in the world) was laid July 25, 1876, and the first boat, the steamer City of Cleveland (now City of Alpena), Captain Albert Stewart, locked through on September 1, 1881.

The length of the canal is 7,000 feet. Its width is variable. The least width is 108 feet, at the movable dam. The depth of water is 16 feet. Vessels are protected against injury from the rocky sides of the canal by a revetment of pier work, the general height of which is 4 feet above mean water level. The material is pine timber 1 foot square. There are 12,000 linear feet of wooden piers, and 3,100 linear feet of masonry connected with the canal.

LOCK.

The chamber of the lock is 515 feet long between the gates, 80 feet wide, narrowed to 60 feet at the gates; the depth is 39½ feet. Its capacity is 1,500,000 cubic feet. The depth of the water on the miter-sills is 17 feet; the lift of the lock is 18 feet. The volume of water in the lock chamber when filled to the level of the canal above, amounts to 9,888,000 gallons. The

sills are placed 1 foot below canal bottom, so as to be protected from injury by vessels. A guard gate is placed at each end of the chamber, making the length of the walls 717 feet.

The walls are of limestone. The cut stone was obtained from Marblehead, Ohio, and Kelley's Island, Lake Erie.

There are 34,207 cubic yards of masonry, in the construction of which 35,000 barrels of cement were used, every barrel of which was tested before it was taken on the wall.

The face stone, the miter and breast walls, and portions of the wall adjacent to springs of water, are laid in English Portland cement; the remainder of the wall is laid in American cement. The cements were mixed with sand in the proportion of 1 to 1.

The foundation is on rock throughout, a Potsdam sandstone of different degrees of hardness. A floor of timber and concrete extends across the bottom of the lock and 5 feet under each wall; the rest of the foundation of the wall is concrete $\frac{1}{2}$ to 2 feet thick on the rock. All the timbers used in the foundation are of pine 1 foot square. They are laid in concrete and fastened to the rock with bolts 3 feet long, which are fox wedged and cemented in the rock.

The miter-sills are oak timbers 12 by 18 inches, and fastened in place by bolts 10 feet long, fox-wedged and concreted in the rock, and also by timber braces bolted to the rock.

The estimated capacity of the lock is 96 vessels in twenty-four hours. At the close of the season of 1887, the greatest number of vessels ever through the canal in one day, was on June 14, 1887, when 84 vessels were locked through.

The original plans and specifications for this lock were prepared under direction of Gen. Orlando M. Poe, U. S. A. Later, they were somewhat modified under direction of Gen. Godfrey Weitzel, U. S. A. Mr. Alfred Noble, was the Assistant Engineer in local charge of the work from beginning to end.

The total cost of the canal enlargement was \$2,150,000.

GATES.

Two minutes are required to open or close the lock-gates.

There are four gates, designated as upper and lower lock-gates and upper and lower guard-gates. The frame work is of white oak and sheathing of Norway pine. The weight of one leaf of the upper lock-gate is 40 tons and of one leaf of the lower lock-gate 76 tons.

The guard-gates are only used when repairs are being made to the lock. They are opened and closed by means of temporary block and tackle operated by a power capstan. Both leaves of the upper guard-gate are provided with valves, with which to fill the lock after it has been pumped out. The valves are worked with a hand wrench from the top of the leaf. The lock can be filled through these valves in about one hour.

FILLING.

Eleven minutes are required to fill the lock.

The water is let into the locks from two culverts under the floor. These culverts are each 8 feet square, and extend from the well above the upper lock-gate to the well above the lower lock-gate. The water is admitted into the culverts through a well which is covered with a grating.

The covering of the culverts is the floor of the lock. The water passes into the lock chamber through 58 apertures in the lock floor. Each aperture has an area of 3 square feet; the 58 apertures 174 square feet. This area is increased to 190 square feet by the man-holes left in the bulkhead at the lower end of the culverts.

The filling valves through which the water enters the culverts are two in number, and are located in the well just above the upper lock-gate. Each valve, when shut, closes the entrance to one of the culverts. Each valve is 10 feet wide and 8 feet deep. The valves are made with horizontal cast-iron axles, and frames, to which a covering of boiler iron is bolted.

EMPTYING.

Eight minutes are required to empty the lock.

The water in passing out of the lock goes down through a well which is covered with a grating, thence through two short culverts and up through a well below the lower lock-gates.

The emptying valves, through which the water escapes from the lock, are two in number and are located in the well just above the lower lock-gate. Their construction is similar to that of the filling valves, just described. Each culvert is complete in itself. If an accident should occur to one culvert, or to its valves or engines, the other culvert could still be used.

MACHINERY.

The power is obtained from two 30 inch turbines. The computed effective energy of the two wheels combined is 50 horsepower. Water is brought to them through a supply pipe from the canal above the lock. Both are connected by spur gearing to the main shaft. The power for operating the different parts of the machinery is taken from this main shaft by means of pulleys and belts in the usual manner. Two pumps force water into an accumulator loaded so as to give a pressure of about 120 pounds to the square inch. Water is taken from the accumulator to the engines which open and close the gates and valves. Heavy West Virginia mineral oil is used in the cylinders whenever the temperature is so low that water would be likely to freeze. There are four gate engines, one for each leaf of the upper and lower lock-gates, and four valve engines, one for each of the filling and emptying valves.

The machine house is of stone. There is a cellar, ground floor, and upper floor. The main shaft, accumulator, pumps, etc. are on the upper floor; the pen-stock, dynamo, tool-room, etc. are located on the ground floor. The accumulator passes from the cellar up through the upper floor.

The turbine iron supply pipe lies on the south side of the

lock. The inlet is 45 feet above the upper guard-gates and 7 feet below the surface of the water, and is covered with an iron grating. It has a cut-off valve 9 feet from the inlet. Its interior diameter is 36 inches.

The pump for emptying the lock is in the cellar of the machine house. It is a centrifugal, run by a belt from the main shaft. It is about 8 feet below the surface of the water. When the water is to be pumped out of the lock, the guard-gates above and below it are closed. Seventeen hours are required to empty the lock with the pump.

The dynamo for the electric lights, used in lighting the locks, is a ten-arc-light machine of the "Brush" patent. It is run by a belt from the main shaft. The force required is eight horse-power.

The power capstan is on the lock wall near the machine house. It is run by belts from the main shaft. The capstan is used for warping vessels into and out of the lock. A system of lines and snatch-blocks extends around the lock, so that vessels can be warped in from either end and to either side.

The movable dam is about 3,000 feet from the lock, and is designed to check the flow of water so that the upper guard-gates can be closed in case the lock-gates are accidentally carried away. It consists of an ordinary swing-bridge, one end of which can be swung across the canal. A series of wickets are suspended side by side from a horizontal truss hung beneath the bridge, and abutting, at either end (when the bridge is closed), against heavy buffers securely anchored to the masonry. One end of each wicket can be let down until it rests against a sill in the bottom of the canal. When the wickets are all down they form a vertical bulkhead or dam. The wickets are 23 in number; each wicket is supported in an iron frame.

The bottom of the canal under the movable dam is covered with a floor. The dead weight on the truss due to the wickets and frames is 1,600 pounds per running foot. This is counterpoised by brick work at the opposite end of the truss. The lateral pressure of the water against the wickets, is 3,400 pounds per running foot.

The canal, upon which the General Government had spent large sums, was still in the possession of the State of Michigan. Congress on June 14, 1880, authorized the Secretary of War to receive the canal from the State of Michigan. The transfer was made June 6, 1881. Since that time the canal has been in the possession of the General Government, and all vessels have been passed through free of toll.

The chamber of the lock now building on the site of the two old locks of 1855, will be 800 feet long between the gates, 100 feet wide and 43½ feet deep. Its capacity will be 3,440,000 cubic feet. The depth of water on the miter-sills will be 21 feet, and the lift of the lock 18 feet. The volume of water in the lock chamber when filled to the level of the canal above, will be 23,338,000 gallons. The estimated capacity of the lock is four vessels, each 350 feet long and 46 feet wide, at one lockage.

The canal will be deepened to a navigable depth of 20 feet.

The estimated cost of the lock and enlarged canal is \$4,740,000. Work was begun in the Spring of 1887. Gen. Orlando M. Poe, U. S. Army, is the Engineer in charge of the improvements.

There are now engaged in the commerce of the lakes nearly 2,000 American vessels. They represent an investment of \$50,000,000 capital. Some of these vessels are of sufficient capacity to carry at a single trip the grain that would load five freight trains of thirty cars each, with over 600 bushels per car. The entire wheat crop of a 4,000 acre Dakota wheat-farm went through the canal on one of these great carriers.

Statement of the Commerce through Saint Mary's Falls

Year.	Sailing vessels.	Steamers.	Unregistered Craft.	Total Passages.	Total Lockages.	TONNAGE.		Passengers.	Coal.	Flour.	Wheat.	Year.
						Registered.	Actual Freight.					
1855	(a)	(a)	(b)	(a)	(c)	106,296	(c)	4,270	Tons.	Barrels.	Bushels	1855
1856	(a)	(a)	(b)	(a)	(c)	101,458	(c)	4,674	3,968	17,686	(e)	1856
1857	(a)	(a)	(b)	(a)	(c)	180,820	(c)	6,650	5,278	16,560	(e)	1857
1858	(a)	(a)	(b)	(a)	(c)	219,819	(c)	9,230	4,118	13,782	(e)	1858
1859	(a)	(a)	(b)	(a)	(c)	352,642	(c)	.....	8,884	39,459	(e)	1859
1860	(a)	(a)	(b)	(a)	(c)	403,657	(c)	.....	.....	50,250	(e)	1860
1861	(a)	(a)	(b)	(a)	(c)	276,639	(c)	8,816	11,507	22,743	(e)	1861
1862	(a)	(a)	(b)	(a)	(c)	359,612	(c)	8,468	11,346	17,291	(e)	1862
1863	(a)	(a)	(b)	(a)	(c)	507,434	(c)	18,231	7,805	31,975	(e)	1863
1864	1,045	366	(b)	1,411	(c)	571,438	(c)	16,985	11,282	33,937	(e)	1864
1865	602	395	(b)	997	(c)	409,062	(c)	19,777	.....	34,985	(e)	1865
1866	555	453	(b)	1,008	(c)	458,530	(c)	14,067	19,915	33,603	(e)	1866
1867	839	466	(b)	1,305	(c)	556,899	(c)	15,120	22,927	28,345	(e)	1867
1868	817	338	(b)	1,155	(c)	432,563	(c)	10,590	25,814	27,372	(e)	1868
1869	939	399	(b)	1,338	(c)	524,885	(c)	17,637	27,850	32,007	(e)	1869
1870	1,397	431	(b)	1,828	(c)	690,826	(c)	17,153	15,952	33,548	49,700	1870
1871	1,064	573	(b)	1,637	(c)	752,101	(c)	15,859	46,798	26,060	1,376,705	1871
1872	1,212	792	(b)	2,004	(c)	914,735	(c)	25,830	80,815	136,411	567,134	1872
1873	1,549	968	(b)	2,517	(c)	1,204,446	(c)	30,966	96,780	172,692	2,119,997	1873
1874	833	901	(b)	1,734	(c)	1,070,857	(c)	22,958	61,123	179,855	1,120,015	1874
1875	569	1,464	(b)	2,033	(c)	1,259,534	(c)	19,685	101,260	309,991	1,213,788	1875
1876	684	1,733	(b)	2,417	(c)	1,541,676	(c)	30,286	124,734	315,224	1,971,549	1876
1877	1,401	1,050	(b)	2,451	(c)	1,439,216	(c)	21,800	91,575	355,117	1,349,738	1877
1878	1,091	1,476	(b)	2,567	(c)	1,667,136	(c)	20,394	91,856	344,599	1,872,940	1878
1879	1,403	1,618	100	3,121	(c)	1,677,071	(c)	18,979	110,704	451,000	2,603,666	1879
1880	1,718	1,735	50	3,503	(c)	1,734,890	(c)	25,766	170,501	523,860	2,105,920	1880
1881	1,706	2,117	181	4,004	2,120	2,092,757	1,567,741	24,671	295,647	605,453	3,456,965	1881
1882	1,663	2,759	372	4,774	2,572	2,468,088	2,029,521	29,256	430,184	344,044	3,728,856	1882
1883	1,458	2,620	237	4,315	2,351	2,042,259	2,267,105	39,130	714,444	687,031	5,900,473	1883
1884	1,709	3,609	371	5,689	3,074	2,997,837	2,874,557	54,214	706,379	1,248,243	11,985,791	1884
1885	1,639	3,354	337	5,380	2,863	3,035,937	3,256,028	36,147	894,991	1,440,093	15,274,213	1885
1886	2,534	4,584	306	7,424	3,593	4,219,397	4,527,759	27,088	1,009,969	1,759,365	18,991,485	1886
1887	2,562	5,968	825	9,355	4,165	4,897,598	5,404,649	32,068	1,352,987	1,572,735	23,096,520	1887

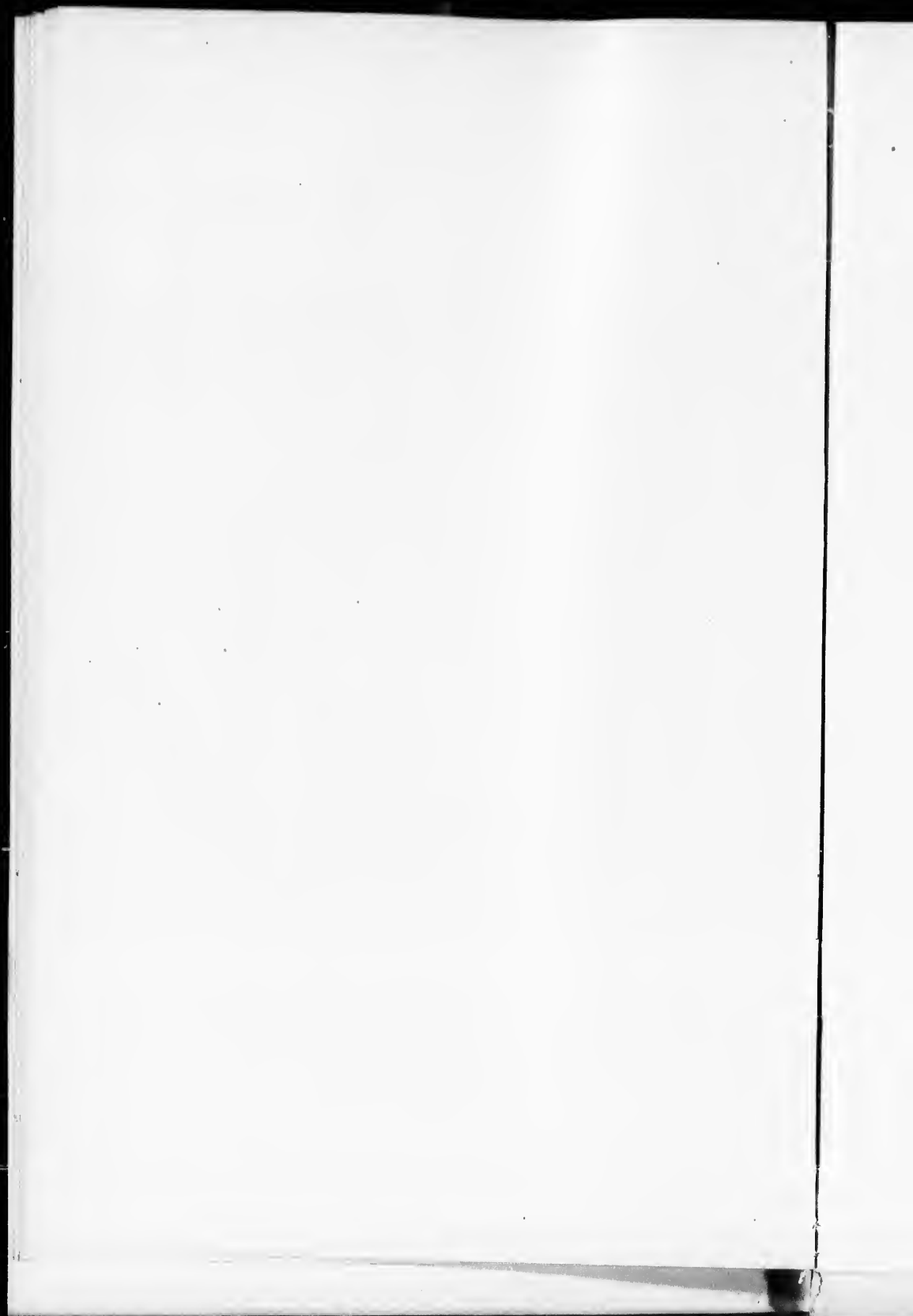
(a) No record kept until 1864.
 (b) No record kept until 1879.
 (c) No record kept until June, 1881.

Canal for each calendar year from its opening in 1855.

Year.	Grain— other than Wheat.	Manufact- ured and Pig Iron.	Salt.	Copper	Iron Ore.	Lumber. B. M.	Silver Ore and Bullion.	Building Stone.	Date of Opening.	Date of Closing.
	<i>Bushels.</i>	<i>Tons.</i>	<i>Barrels.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Feet.</i>	<i>Tons.</i>	<i>Tons.</i>		
1855	.....	1,040	587	3,196	1,447	136,000	(d)	(e)	June 18	Nov 23
1856	33,908	781	464	5,727	11,597	395,000	(d)	(e)	May 4	Nov. 28
1857	22,300	1,325	1,500	5,760	26,184	572,000	(d)	(e)	May 9	Nov. 30
1858	10,500	2,597	950	6,744	31,035	185,000	(d)	(e)	Apr. 18	Nov. 20
1859	71,738	5,504	2,737	7,247	65,769	.....	(d)	(e)	May 3	Nov. 28
1860	133,437	.....	.....	9,000	120,000	.....	(d)	(e)	May 11	Nov. 26
1861	76,830	4,194	3,014	7,645	44,836	394,000	(d)	(e)	May 3	Nov. 14
1862	59,062	6,438	2,477	6,881	118,014	196,000	(d)	(e)	Apr. 27	Nov. 27
1863	78,480	6,681	1,506	1,044	181,567	1,411,000	(d)	(e)	Apr. 28	Nov. 24
1864	143,560	7,643	1,776	5,331	213,753	2,001,000	(d)	(e)	May 2	Dec. 4
1865	.....	7,346	3,175	9,935	147,459	822,000	(d)	(e)	May 1	Dec. 3
1866	229,926	13,235	4,454	9,550	152,102	144,000	(d)	(e)	May 5	Dec. 8
1867	249,031	20,602	5,316	10,585	222,861	390,000	(d)	(e)	May 4	Dec. 3
1868	285,123	22,785	4,624	12,222	191,939	1,119,000	(d)	(e)	May 2	Dec. 3
1869	323,501	25,851	5,910	18,662	239,368	1,260,000	(d)	(e)	May 4	Nov. 29
1870	304,077	42,959	11,089	11,301	409,850	722,000	92	2,917	Apr. 29	Dec. 1
1871	308,823	54,984	36,199	14,562	327,461	1,072,000	464	5,223	May 8	Nov. 29
1872	445,774	86,194	42,690	14,591	383,105	1,744,000	306	5,213	May 11	Nov. 26
1873	309,645	44,920	29,335	15,927	504,121	1,162,000	580	2,218	May 5	Nov. 18
1874	149,999	31,741	42,231	15,346	427,658	638,000	443	401	May 12	Dec. 2
1875	250,080	54,381	43,989	18,396	493,408	5,391,000	847	2,978	May 12	Dec. 2
1876	407,772	64,091	46,666	25,756	609,752	17,761,000	985	2,102	May 8	Nov. 26
1877	343,542	39,971	63,188	16,767	568,082	4,143,000	987	2,506	May 2	Nov. 30
1878	264,674	14,882	63,520	22,529	555,750	24,119,000	650	2,754	Apr. 8	Dec. 3
1879	951,496	39,218	92,245	22,309	540,075	35,598,000	324	2,226	May 2	Dec. 3
1880	2,547,106	46,791	77,916	21,753	677,073	44,539,000	66	2,283	Apr. 28	Nov. 15
1881	367,838	87,830	65,897	29,488	748,131	58,877,000	.....	1,400	May 7	Dec. 5
1882	473,129	92,870	176,612	25,409	987,060	82,783,000	22	5,428	Apr. 21	Dec. 3
1883	776,552	109,910	70,898	31,024	791,732	87,131,000	84	2,405	May 2	Dec. 11
1884	517,103	72,428	144,804	36,062	1,136,071	122,389,000	9,731	6,047	Apr. 23	Dec. 10
1885	422,981	60,842	136,355	31,927	1,235,132	127,984,000	3,669	8,189	May 6	Dec. 2
1886	715,373	115,208	158,677	38,627	2,087,809	138,688,000	2,009	9,449	Apr. 25	Dec. 4
1887	775,166	74,919	204,908	34,886	2,497,713	165,226,000	350	13,401	May 1	Dec. 2

(d) None shipped from Lake Superior until 1867.

(e) None shipped from Lake Superior until 1870.





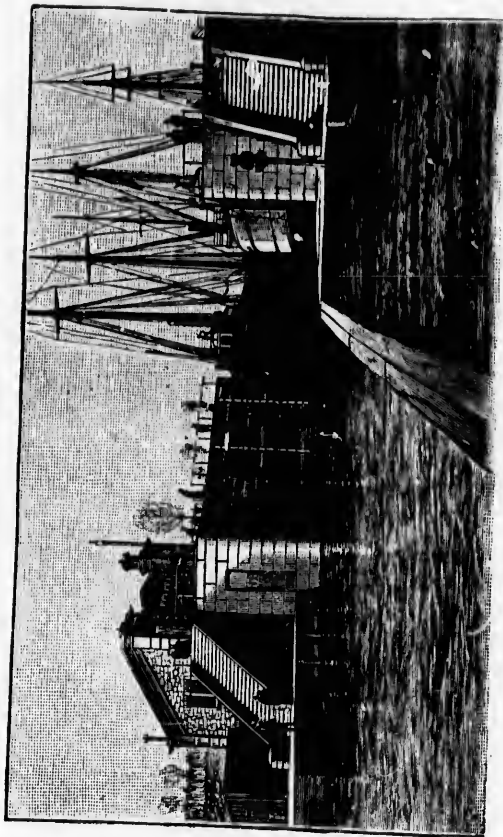
Tourists and visitors to Mackinac Island will find this new establishment equipped with Chariots, Coaches, Cabriolettes, Wagonettes, Phaetons, Surries, and Saddle Horses.

Picturesque Mackinac is famous for the many delightful drives that wind here and there in the most enchanting way to the various places of interest.

One of the novel features of this chariot line, are the Guides, which add much to the interest and pleasure of the ride, by giving all desired information about Mackinac.

Come into my office while at Mackinac, if you wish any kind of intelligence and it will be given freely.

A. FISK STARR.



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Mondays, Wednesdays and Fridays,
6 o'clock a. m.

MACKINAC ISLAND

9 o'clock a. m.

ARRIVING AT

SAULT STE MARIE

6 o'clock p. m.

LEAVES

SAULT STE MARIE

Tuesdays, Thursdays and Saturdays
6 o'clock a. m.

ARRIVES AT

MACKINAC ISLAND

2.30 o'clock p. m.

CHEBOYGAN

5 o'clock p. m.

LEAVES

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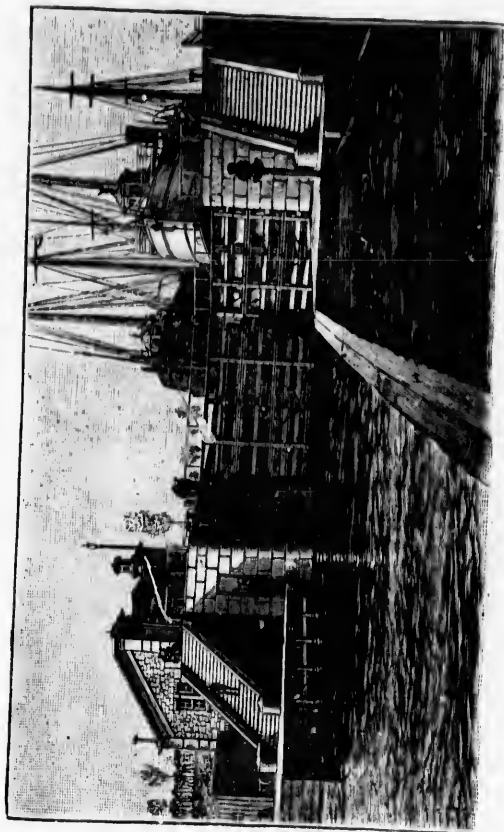
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LOCK OF 1881.—LOWER GATES CLOSED.



This Fan for the destruction of insects consists of a body entirely of wire gauze, having a binding of soft material and provided with a flexible handle. To operate the Fan consists in giving a quick, short blow, either when the insect is on the wing or at rest.

This fan is exactly what is wanted for use in restaurants, dining rooms, show-windows, and places where flies congregate.

It fills a place almost indispensable—in consideration of the annoyance and liability of contagious diseases by insects (now so well authenticated by medical science). It is highly practicable in that the insect is not warned and does not fly, or is not blown away, as is the case when struck at by a solid surface.

Endorsed by the leading Surgeons of the Army and Navy, by Hospitals, Hunters, Fishermen, Students, School Teachers, Bankers, Book-keepers, Lawyers, Judges, Clergymen, Invalids, Nurses, and in fact by all who are ever exposed, night or day, to mosquitoes, flies or any flying insects.

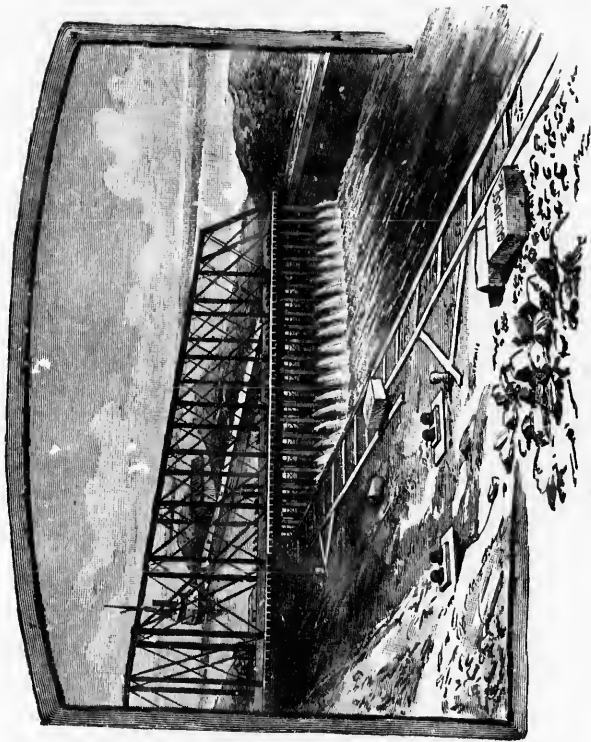
SENT BY MAIL, POST-PAID, ON RECEIPT OF 50 CENTS.

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We are also Detroit Agents for DR. JAEGER'S SANITARY WOOLEN CLOTHING.



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100 ROOMS.

Terms, \$2.00 and \$2.50 per Day.

HEADQUARTERS FOR THE ARMY AND NAVY.

HEADQUARTERS FOR ALL FISHING CLUBS.

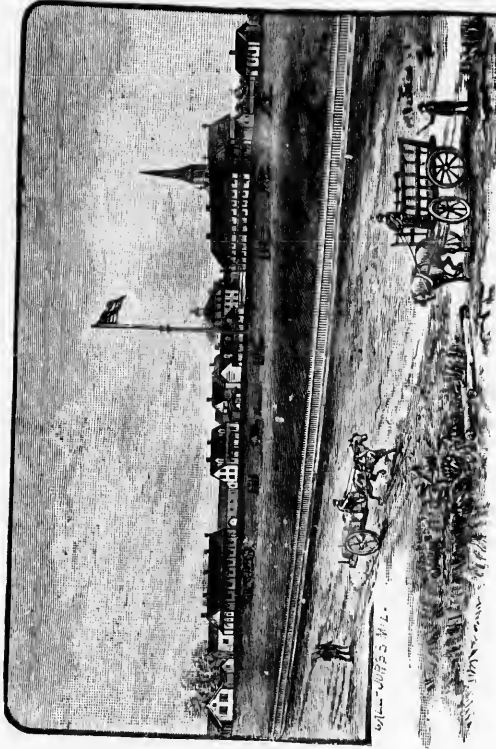
The Chippewa House is conveniently located on Water Street, (nearer the river than any other hotel in the city), a few yards from where all the passengers are landed who arrive by boat; fifty yards from the main entrance to Fort Brady, (the Army Officers messing at the Chippewa), and one hundred yards from the Canal Locks.

Electric lights in every room, and the house fitted with all modern conveniences. No danger from fires, as the rooms are on the ground floor, or up but one flight of stairs.

All passengers arriving by boat will save carriage hire to and from all boats, by stopping at the Chippewa.

Ferry boats running to the Canada side of the river start every fifteen minutes from the wharf opposite the Chippewa.

HENRY P. SMITH, Prop'r & Manager.



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