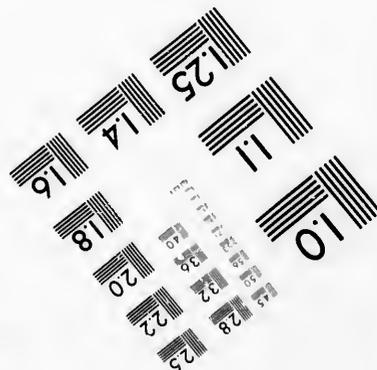
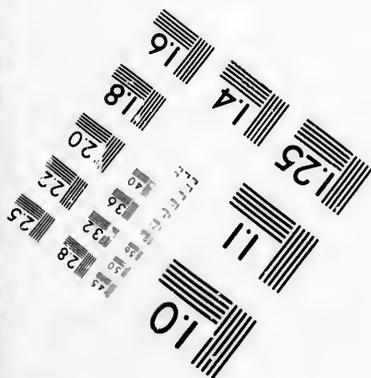
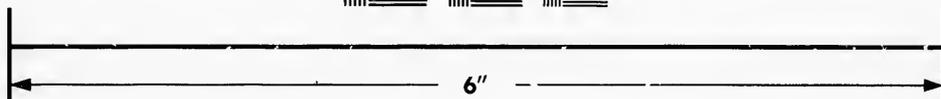
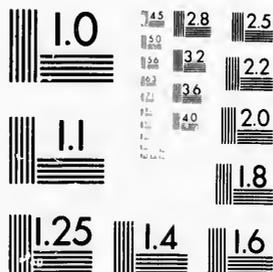


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

Ca

1.5 2.8 2.5
3.2 2.2
3.6 2.0
4.5

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**

10



Canadian Institute for Historical Microreproductions

Institut canadien de microreproductions historiques

1980

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers/
Couverture de couleur
- Covers damaged/
Couverture endommagée
- Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- Cover title missing/
Le titre de couverture manque
- Coloured maps/
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- Bound with other material/
Relié avec d'autres documents
- Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distortion le long de la marge intérieure
- Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- Additional comments:/
Commentaires supplémentaires:

- Coloured pages/
Pages de couleur
- Pages damaged/
Pages endommagées
- Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- Pages detached/
Pages détachées
- Showthrough/
Transparence
- Quality of print varies/
Qualité inégale de l'impression
- Includes supplementary material/
Comprend du matériel supplémentaire
- Only edition available/
Seule édition disponible
- Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

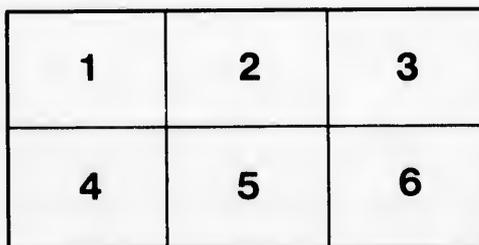
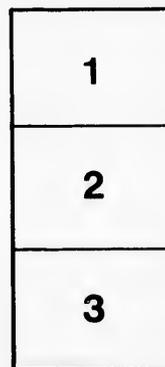
Library of the Public
Archives of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

La bibliothèque des Archives
publiques du Canada

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

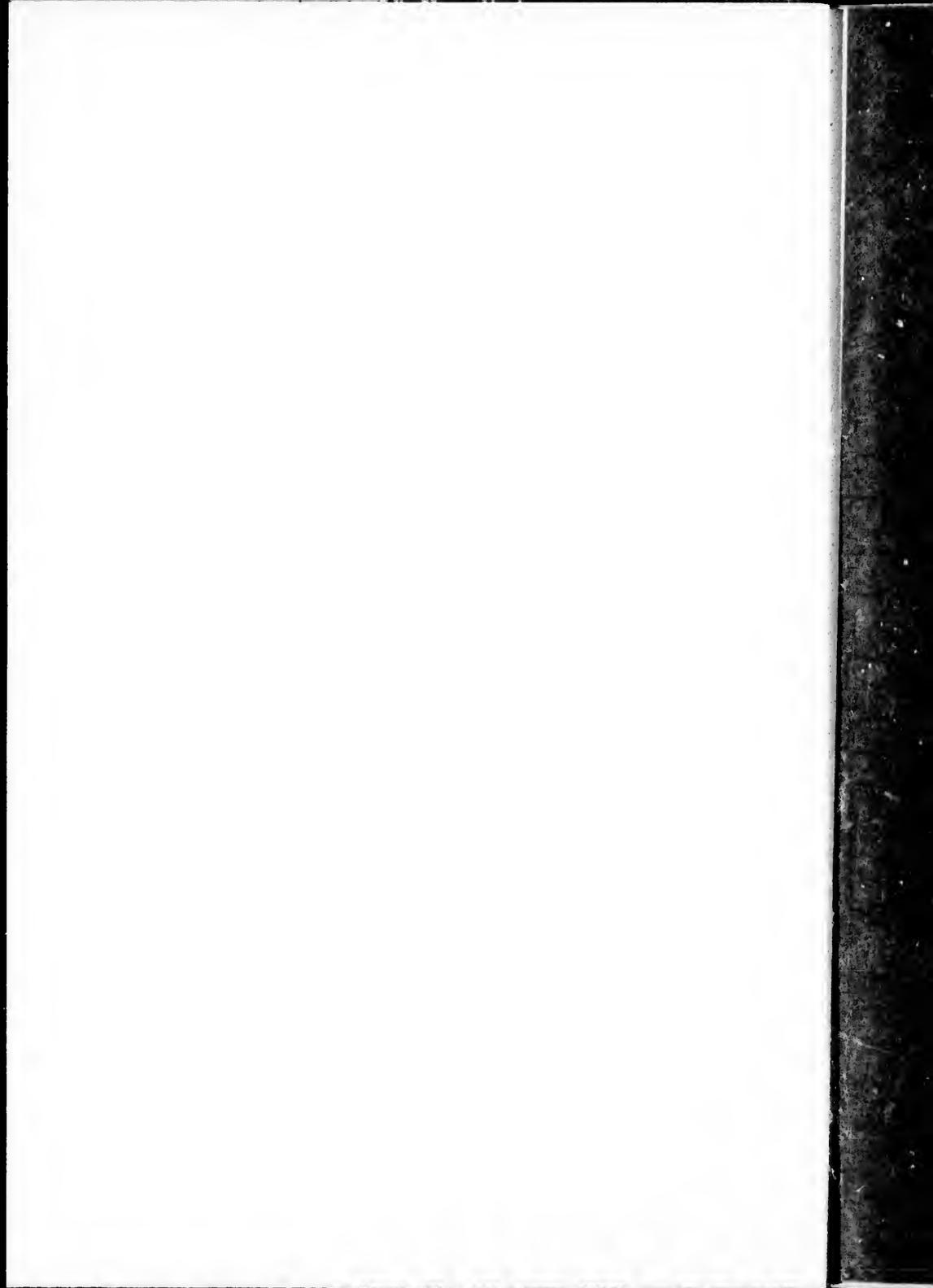
Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

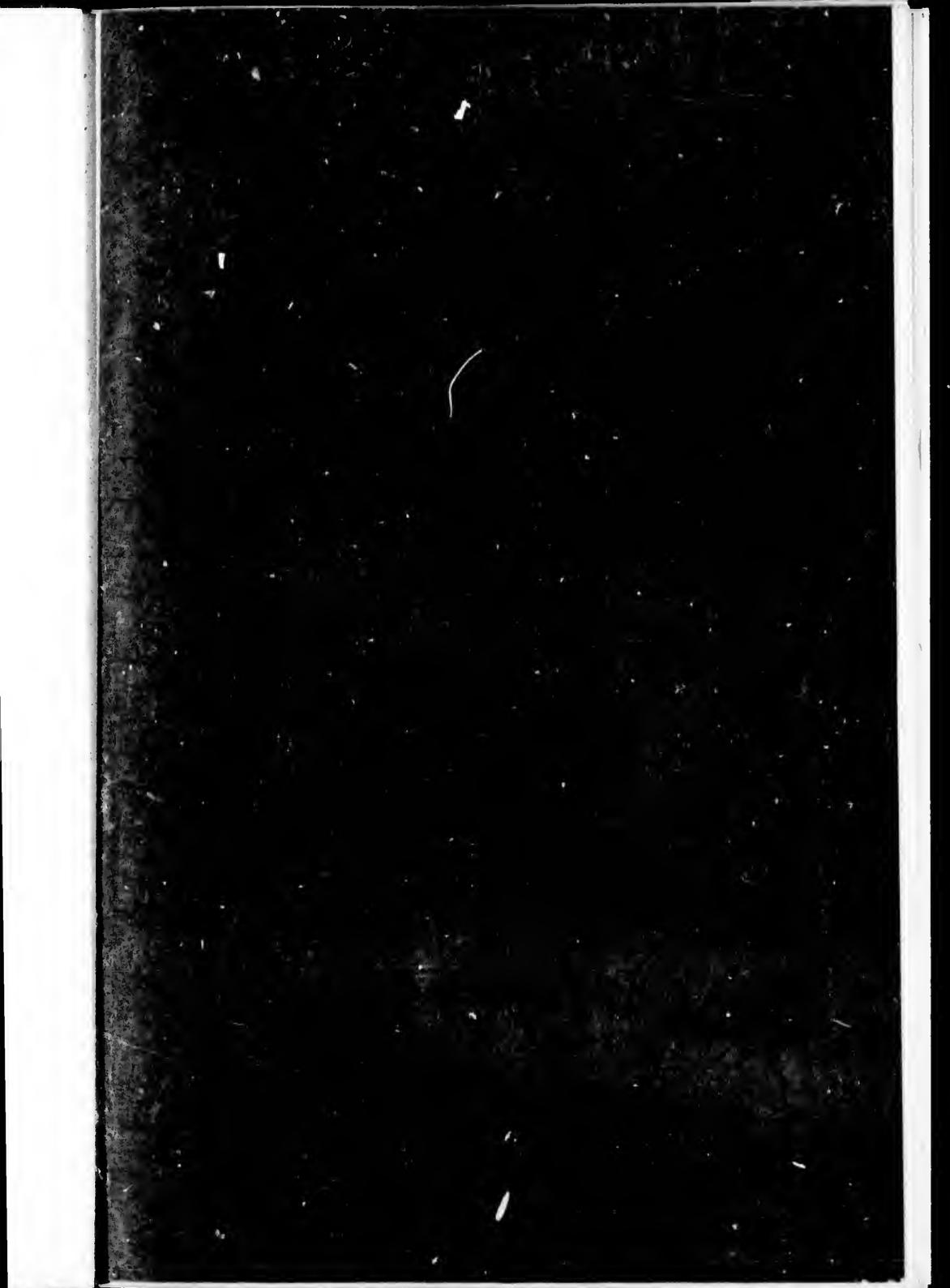
ails
du
difler
une
page

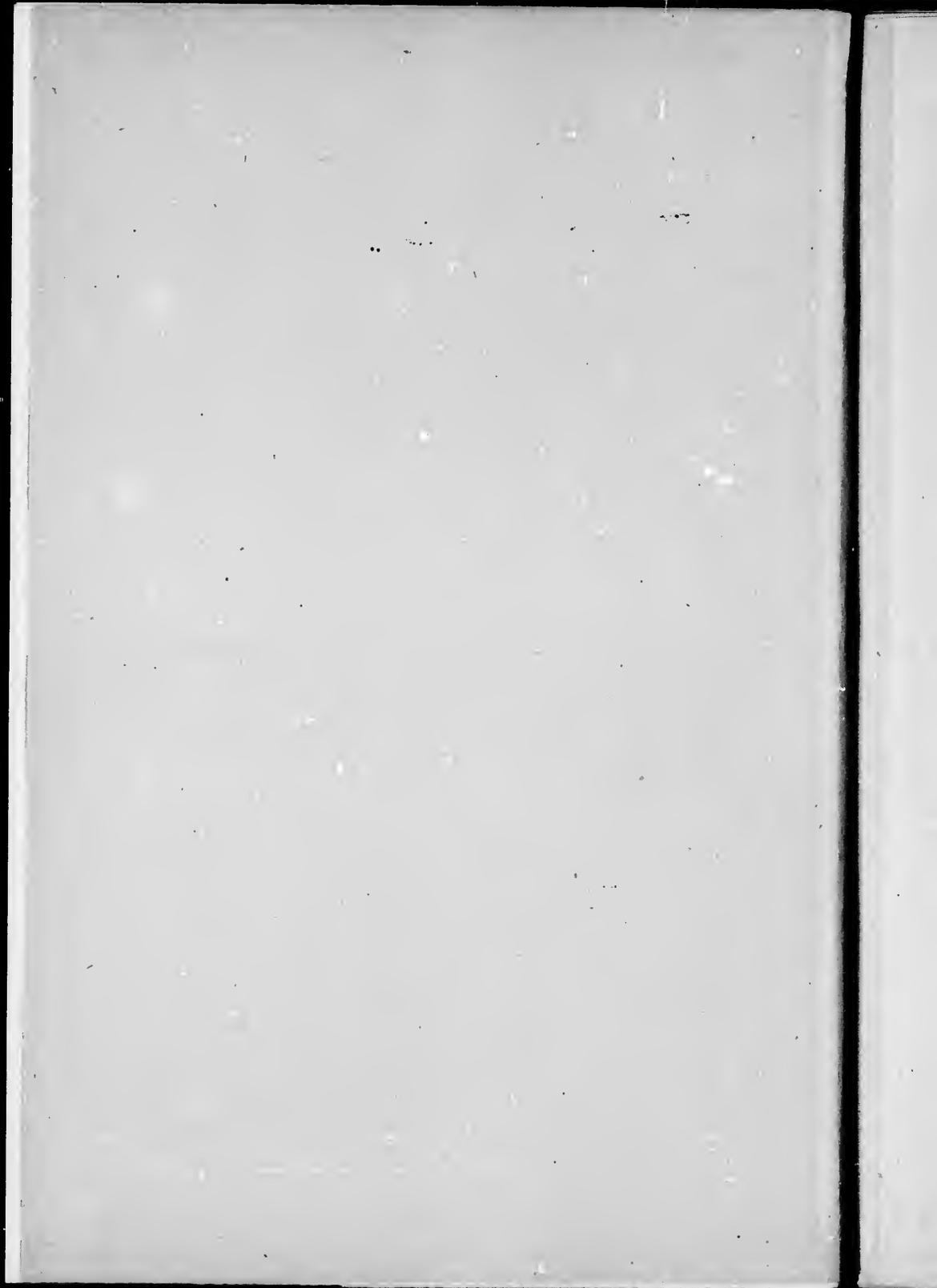
rrata
co

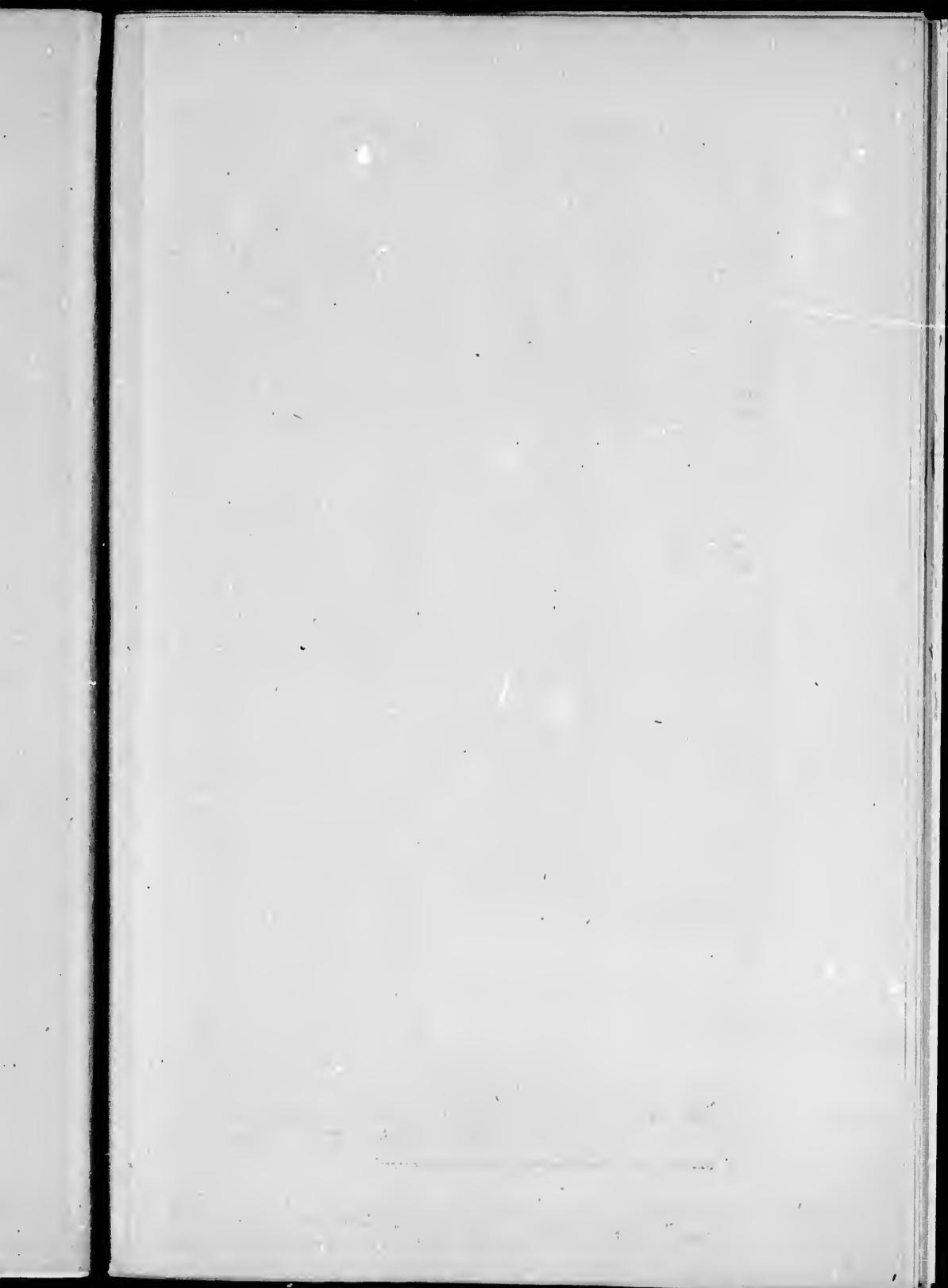
pelure,
n à

32X









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,
CORRESPONDING MEMBER OF THE CHICAGO HISTORICAL SOCIETY,
MEMBER OF THE AMERICAN HISTORICAL ASSOCIATION,
MEMBER OF THE AMERICAN FOLK-LORE SOCIETY.

DETROIT, MICH.

1888.

Entered according to Act of Congress, in the year 1888, by

DWIGHT H. KELTON,

in the office of the Librarian of Congress, at Washington.

Printed by

Detroit Free Press Printing Co.

SAULT STE. MARIE, MICHIGAN.

Latitude 46° 30' 10" North.

Longitude 84° 22' West of Greenwich.

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 *Bawitig*, 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 *Bawitigówiníwag*, or *Bawitig dázhi-iníwag*, "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 *Giwideoonaning*, "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 *baro*, "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 Cnfield, Topographical Engineers, U. S. A.

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

The last boat, the stean 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 masoury 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 $43\frac{1}{2}$ 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.
						Regis-tered.	Actual Freight.					
									Tons.	Barrels.	Bushels.	
1855	(a)	(a)	(b)	(a)	(c)	106,296	(c)	4,270	1,414	10,289	(e)	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)	18,251	7,805	31,075	(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	23,927	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	(a)	524,885	(c)	17,657	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	2,608,666	1879
1880	1,718	1,735	50	3,503	(c)	1,734,890	(c)	25,736	170,501	523,860	2,105,920	1880
1881	1,706	2,117	181	4,004	2,130	2,092,757	1,567,741	24,671	295,647	605,453	3,456,965	1881
1882	1,663	2,739	372	4,774	2,572	2,468,088	2,029,521	29,256	430,184	714,044	3,728,856	1882
1883	1,458	2,620	237	4,315	2,351	2,012,259	2,267,105	39,130	714,444	687,031	5,900,473	1883
1884	1,709	3,600	371	5,689	3,071	2,997,837	2,874,557	54,214	706,379	1,248,243	11,985,791	1884
1885	1,689	3,351	337	5,380	2,863	3,035,937	3,256,638	36,147	894,991	1,440,093	15,274,213	1885
1886	2,534	4,581	306	7,421	3,593	4,219,397	4,527,759	27,088	1,009,999	1,759,365	18,991,485	1886
1887	2,562	5,963	825	9,355	4,165	4,897,598	5,494,649	32,668	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.

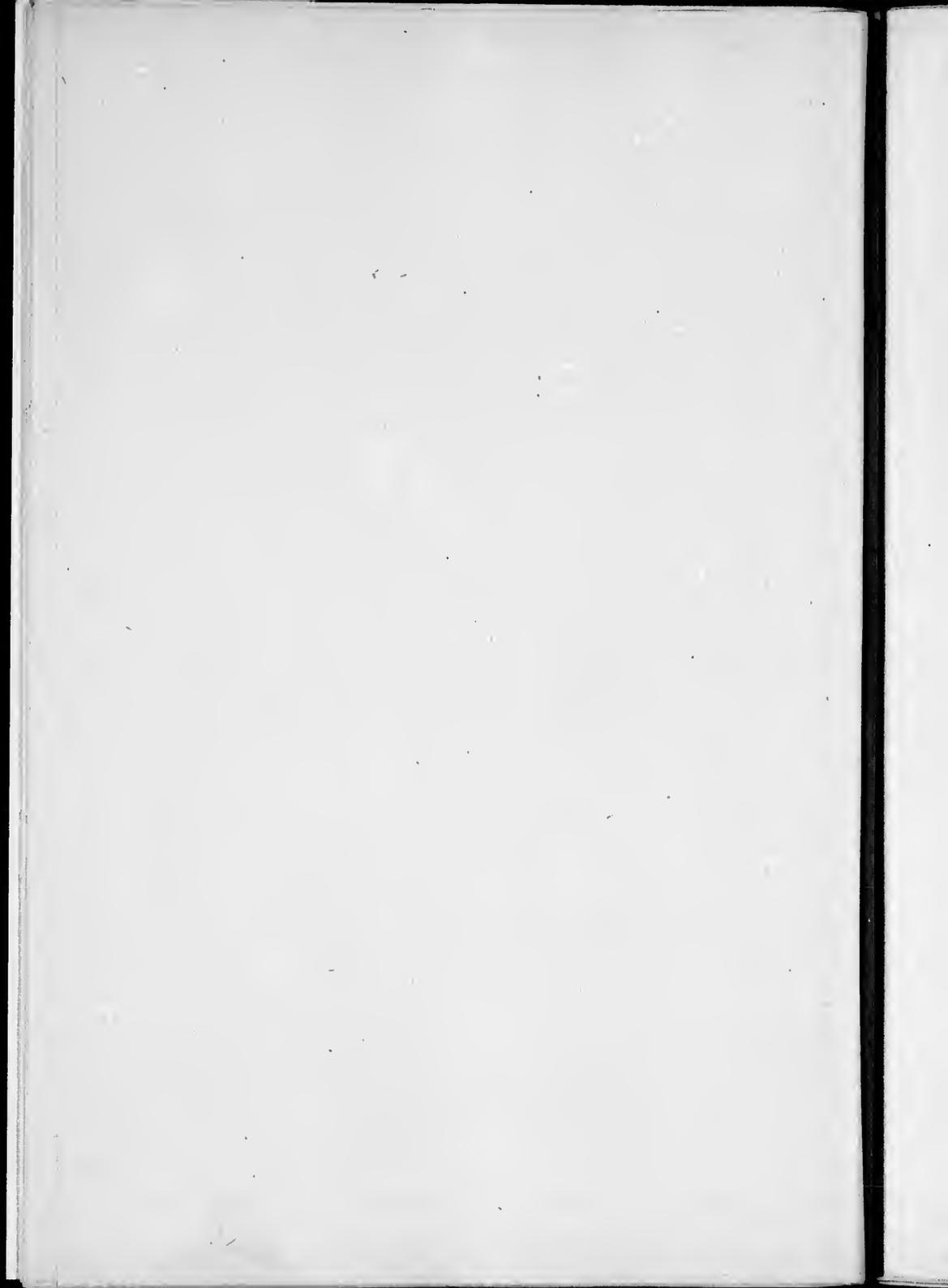
Falls

Canal for each calendar year from its opening in 1855.

Wheat.	Year.	Grain— other than Wheat.	Manufactured 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> (e)		<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	126,000	(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	5,501	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	78,460	6,661	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	822,900	(d)	(e)	May 1	Dec. 3
	1866	229,926	13,235	4,454	9,550	152,102	144,000	(d)	(e)	May 5	Dec. 3
	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	23,851	5,910	18,662	239,368	1,260,000	(d)	(e)	May 4	Nov. 29
49,700	1870	304,077	42,959	11,089	11,301	409,850	722,000	92	2,917	Apr. 29	Dec. 1
376,705	1871	308,823	54,084	36,199	14,562	327,461	1,072,000	404	5,228	May 8	Nov. 29
567,134	1872	445,774	86,194	42,600	14,591	383,105	1,744,000	306	5,213	May 11	Nov. 26
119,997	1873	309,645	44,920	29,335	15,927	504,121	1,162,000	580	2,218	May 5	Nov. 18
120,015	1874	149,999	31,741	42,231	15,346	427,658	638,000	443	401	May 12	Dec. 2
213,788	1875	250,080	54,331	43,989	18,396	493,408	5,391,000	847	2,978	May 12	Dec. 2
971,549	1876	407,772	64,091	46,666	25,756	609,752	17,761,000	985	2,102	May 8	Nov. 26
349,738	1877	343,542	39,971	63,188	16,767	568,082	4,143,000	987	2,506	May 2	Nov. 30
872,940	1878	264,674	14,882	63,520	22,529	555,750	24,119,000	650	2,754	Apr. 8	Dec. 3
603,666	1879	951,496	39,218	92,245	22,309	540,075	35,598,000	324	2,226	May 2	Dec. 3
105,920	1880	2,547,106	46,791	77,916	21,753	677,073	44,539,000	66	2,283	Apr. 28	Nov. 15
456,965	1881	367,838	87,830	65,897	29,488	748,131	58,877,000	.....	1,400	May 7	Dec. 5
728,856	1882	473,129	92,870	176,612	25,409	987,060	82,783,000	22	5,428	Apr. 21	Dec. 3
900,473	1883	776,552	109,910	70,898	31,024	791,732	87,131,000	814	2,405	May 2	Dec. 11
985,791	1884	517,103	72,428	144,804	36,062	1,136,071	122,389,000	9,731	6,047	Apr. 23	Dec. 10
274,213	1885	422,981	60,842	136,355	31,927	1,235,132	127,984,000	3,669	8,189	May 6	Dec. 2
991,485	1886	715,373	115,298	158,677	38,627	2,087,809	138,688,000	2,009	9,449	Apr. 25	Dec. 4
996,520	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.





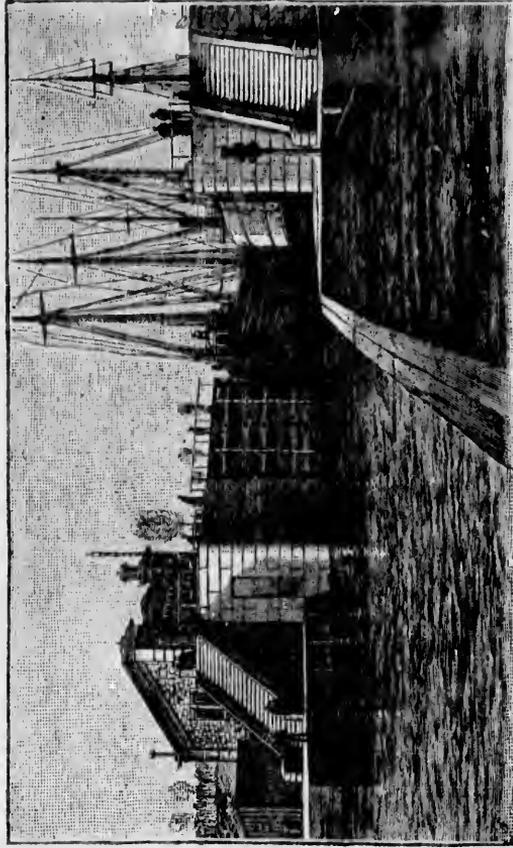
Tourists and visitors to Machinac Island will find this new establishment equipped with Chariots, Coaches, Cabriolettes, Wagonettes, Phaetons, Surries, and Saddle Horses.

Picturesque Machinac 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 Machinac.

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

A. FISK STARR.



LOCK OF 1881.—LOWER GATES OPEN.

SEASON 1888.

Cheboygan, Mackinac & Sault Ste Marie DAILY LINE STEAMERS.

The Only Daily Line on this Popular Route.

Stmr. "Soo City." Stmr. "Minnie M."

BYRON ARMSTRONG, Captain.
ED A. PLUM, Clerk.

LEAVES
CHEBOYGAN

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.

J. B. MONDOR, Captain.
F. M. HUBBARD, Clerk.

LEAVES
CHEBOYGAN

Tuesdays, Thursdays and Saturdays,

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
Mondays, Wednesdays and Fridays,

6 o'clock a. m.

ARRIVES AT

MACKINAC ISLAND

2.30 o'clock p. m.

CHEBOYGAN

5 o'clock p. m.

STOPPING AT ALL PLACES OF LANDING ON THIS ROUTE.

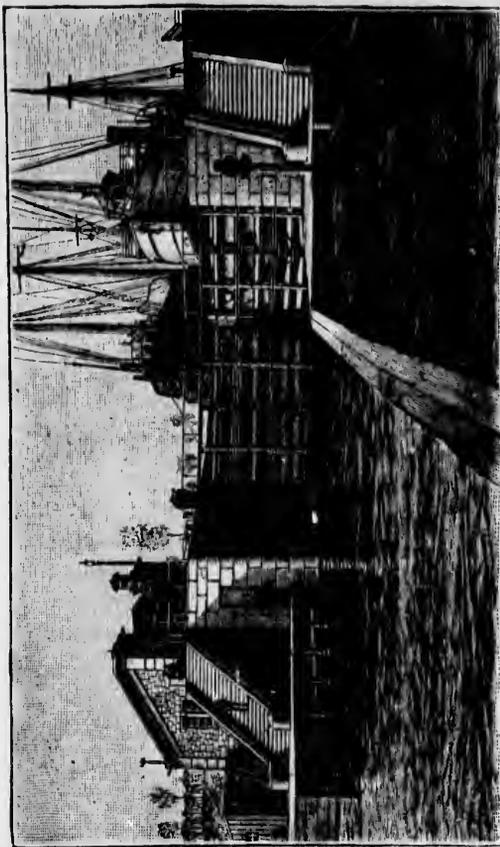
For further information, call on any of the following agents:

P. H. HORNE, Cheboygan. LAMOND & ROBINSON, Mackinaw City. A. S. RUSSEL, St. Ignace.
GEO. T. ARNOLD, Mackinac Island. GEO. KEMP, Sault Ste Marie, or

W. R. OWEN, Manager,

33 Metropolitan Block,

CHICAGO, ILL.



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.

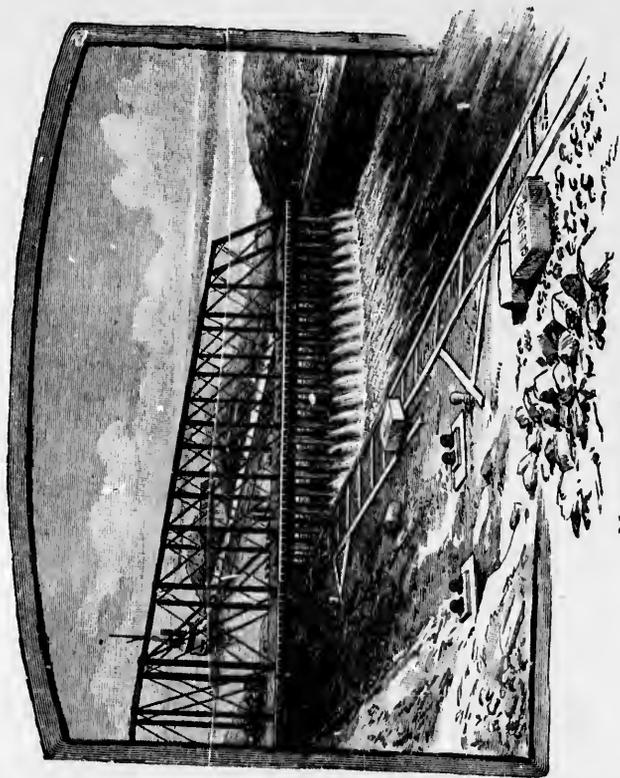
SENT BY MAIL, POST-PAID, ON RECEIPT OF 50 CENTS.

L. A. SMITH & CO.

WOODWARD AVENUE,

DETROIT, MICH.

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



MOVEABLE DAM.—CLOSED.

CHIPPEWA HOUSE

Sault Ste. Marie, Michigan.

100 ROOMS.

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

HEADQUARTERS FOR THE ARMY AND NAVY.

HEADQUARTERS FOR ALL FISHING CLUBS.

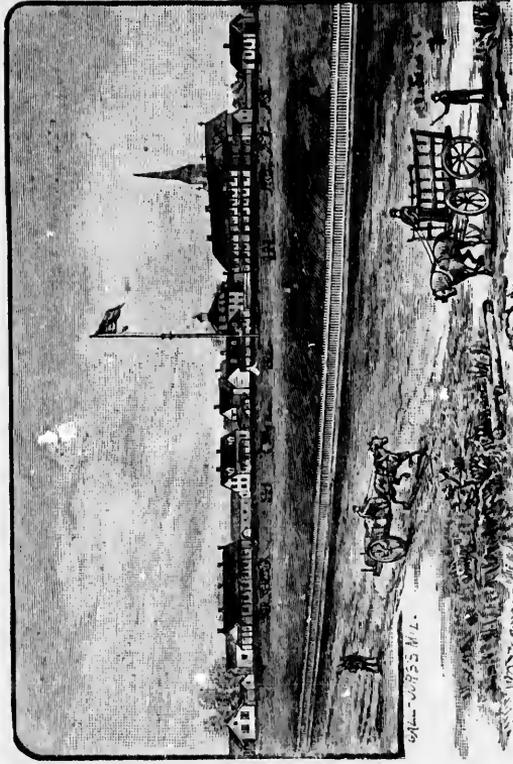
The Chippewa House is conveniently located on Water Street, (nearer the river than any other hotel in the city), a few yards from where all the passengers are landed who arrive by boat; fifty yards from the main entrance to Fort Brady, (the Army Officers messing at the Chippewa), and one hundred yards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



FORT BRADY.—FROM THE RIVER.

THE NEW MACKINAC

*(Built in 1888, upon the site of the old "Mackinac House,"
which was burned in January, 1887.)*

MACKINAC ISLAND, - - MICH.

100 GOOD BED ROOMS.

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

This house is well arranged for the comfort of tourists, and is conveniently located opposite the end of the only passenger wharf on the Island. The furniture, carpets, etc., are all new. The house is equipped with electric bells, and all modern conveniences.

FRED. R. EMERICK, - - PROPRIETOR AND MANAGER.

This hotel has been built and arranged for the special comfort and convenience of summer boarders.

On arrival, each guest will be asked how he likes the situation, and if he says the hotel ought to have been placed upon Fort Holmes or on Round Island, the location of the hotel will be immediately changed.

Corner front rooms, up only one flight, for every guest. Baths, gas, electricity, hot and cold water, laundry, telegraph, restaurant, fire alarm, bar-room, billiard table, daily papers, sewing machine, grand piano, and all other modern conveniences in every room. Meals every minute, if desired, and consequently no second table. English, French and German dictionaries furnished every guest, to make up such a bill of fare as he may desire.

Walters of any nationality and color desired. Every waiter furnished with a libret-to, button-hole boquet, full dress suit, ball tablet, and his hair parted in the middle.

Every guest will have the best seat in the dining hall and the best waiter in the house.

Our clerk was carefully educated for this hotel, and he is prepared to please everybody. He is always ready to sing any song you desire, play upon your favorite musical instrument, match worsted, take a hand at draw-poker, play billiards, study astronomy, lead the german, amuse the children, make a fourth at whist, or flirt with any young lady, and will not mind being "cut dead when Pa comes down." He will attend to the telephone and answer all questions in Choctaw, Chinese, Chippewa, Volapuk, or any other of the Court languages of Europe.

The proprietor will always be happy to hear that some other hotel is "the best in the country." Special attention given to parties who can give information as to "how these things are done in Boston."

For climate, beautiful scenery and health, Mackinac Island cannot be surpassed. Only one funeral in 1887—the patient called a doctor.

St. Ignace Republican

P. D. BISSELL, Editor.

St. Ignace, Mackinac Co., Mich.

PUBLISHED EVERY SATURDAY.

\$2.00 A YEAR.

Western Union Telegraph Co.

C. CORBETT, Ass't Supt.,

DETROIT, - - - MICH.

An extra three-conductor cable has been laid this year (1888) across the Straits, between Mackinaw City and St. Ignace, thus enabling us to give constant and direct service between

Detroit and St. Ignace, Mackinac Island, Sault Ste. Marie, Marquette and all intermediate places.

JOHN-JACOB-ASTOR-HOUSE

MACKINAC ISLAND, MICH.

HEADQUARTERS OF ARMY AND NAVY OFFICERS.

*Former Headquarters of the American Fur
Company.*

The Astor House is conveniently located about one hundred yards from the wharf where all passengers are landed. Tourists stopping at the Astor will save carriage hire to and from all boats stopping at the Island.

No fire traps—12 easy fire-escapes.

Fresh eggs and poultry from the Astor Farm. Fresh milk and butter from the Astor Jersey Dairy.

This is the only hotel on the Island which is supplied with pure running spring water. By authority of a special Act of Congress, we have run a pipe from the noted "Manitou Spring," and the Astor House is now supplied for all purposes with the best and purest water on earth. It was in their vain but determined attempt to retain possession of this, their sacred spring, the ancient tribe of the *Mishinimaki* were utterly exterminated. (This is the only spring on this continent, north of the City of Mexico, where the natural temperature of the water is twenty degrees colder in the summer than in winter. Winter, 55 degrees; Summer, 35 degrees Fahrenheit.)

Guests of the Astor have access to the old and original books of the American Fur Company.

In the basement of the Astor House is the celebrated Astor Fire-Place—so often referred to by Irving—the largest fire-place in the United States.

JAMES F. CABLE, PROP'R.

THE

Sault Ste. Marie News

SAULT STE. MARIE, MICH.

It is the oldest and newsiest paper at the Soo.

It is the representative Republican journal of the Upper Peninsula.

It is the most enterprising weekly newspaper in Michigan.

It has the largest circulation of any paper in Chippewa County.

It is a newspaper, first, last, and all the time.

It is the best advertising medium in the North.

It does not use plate matter.

It is set up by its own compositors, in its own office.

It prints live news, in advance of its contemporaries.

It is a large eight-page, fifty-six column, paper.

It leads the procession.

SUBSCRIPTION, \$1.50 PER YEAR, IN ADVANCE.

ADVERTISING RATES GIVEN UPON APPLICATION

Book and Job Printing,

Book Binding and Engraving,

Complete Job Office.

THE NEWS PUBLISHING CO.,

C. S. OSBORN.

M. A. HOYT.

A. W. DINGWALL.

A. B. DICKINSON,
of
Smith's Hotel, Hillsdale, Mich.

FRANK H. CARR,
Formerly Cashier Boody House,
Toledo, Ohio

THE BRUNSWICK



COR. OF STATE AND GRISWOLD STS.,

One Square from City Hall,

DETROIT, - - MICHIGAN.

LOCATION CENTRAL. Convenient to the leading stores and places of amusement. First-class in all appointments, having passenger elevator, heated by steam, hot and cold water in rooms, and all modern improvements. A large number of very desirable guest and sample rooms have recently been completed in the adjoining building on State Street, immediately in the rear of M. S. Smith & Co.'s jewelry store, making our location absolutely central, and giving ample accommodations for over one hundred guests.

RATES, \$2.50 and \$2.00 PER DAY.

DICKINSON & CARR, - - Proprietors.

KELTON & CO.,
Newspaper Subscription Agency,
QUINCY (Branch Co.) MICHIGAN.

Leading Periodicals of America and Europe at Club Rates
Send your Address and get our Club List.

To **LIBRARIANS**, and all **READERS** of Periodicals we offer many advantages:—

YOU SAVE TIME and **YOU SAVE MONEY**, because you get club rates from all who offer them. and you can order from one to a dozen different periodicals in *one letter* to us, while if you send to the publishers for the same you will have to write and pay postage on from one to a dozen different letters, and the cost of that many drafts or money orders.

FRIENDS will do us a favor by sending us the names of Magazine readers to whom we can send our Club List.

OUR LOCATION is in a pleasant village where the expenses of labor and living are not half as great as in a city; we are on the great Fast Mail Route between New York and Chicago, (on Lake Shore R. R., 82 miles west of Toledo; 162 miles east of Chicago); we have four mails a day each way, and considering the slowness of the delivery of mails in a city (several hours, while here we get them within ten minutes after trains arrive), we can copy and forward orders quicker than if in a city, except it be for the few papers published in the city we might be located in, and the difference in even these could not exceed six hours. With these advantages, and having a steam printing office of our own, no other Agency can equal the dispatch we will give your orders.

We forward orders *daily* (Sundays excepted).

We do not supply sample copies.

Our prices include postage in the U. S. and Canada.

The Post-Office at Quincy, Michigan, is a Money Order office.

Our Annual Club List will be ready to mail by December first of each year.

SUBSCRIPTIONS CAN BEGIN AT ANY TIME, and back numbers can usually be included at same rates.

You waste time in writing given names of subscribers, as publishers put only initials on their papers.

When ordering the *renewal* of a subscription it is not necessary to give the date; simply write "renewal."

Our terms are for advance paying subscribers. Those who owe on past account must settle with the Publishers.

Receipts are sent by postal card for all remittances except those in registered letters, which we receipt for on the registry card.

ONLY FULL YEAR subscriptions are taken at our club prices; if shorter time is desired, send ten cents in addition to the proportionate price.

When your paper begins to come you will know that the publisher has received your name and money; if any copies are lost by mail, or if you want to change your address after that, you should write to them and not to us.

All periodicals are sent to you *postpaid direct from the publishers*, thus insuring promptness and regularity, as we forward your name and money to them at once. If, by any accident, you do not receive your first paper within a reasonable time, write to us, telling [1] name of paper, [2] date of your order, [3] name and address of the subscriber, which will enable us to write necessary particulars to publishers to rectify the delay.

SEND YOUR MONEY by Bank Draft, payable in *New York*; by Express Order payable in *New York*; by Money Order payable in *Quincy, Michigan*; or by Registered Letter.

Advanc
Ameri
Ameri
Ameri
Arkan
Art A
Art H
7
Artlin
Atlant
Babyh
Ballou
Braina
Breede
Carpen
Centur
Chicag
Chicag
Chicag
Chicag
Chicag
Christi
Cincin
Cincin
Cincin
Cincin
Cosmog
Country
Current
Demore
Detroit
Detroit
Detroit
Detroit
Educati
Family
Farmer
Fireside
Forum
Frank L
Frank L
Frank L
Geason
God-y's
Golden
Golden
Harper's
Harper's
Harper's
Harper's
Horsema

SAVE TIME. SAVE MONEY.

CLUB RATES FOR ALL.

All periodicals are sent to you direct from the publishers.

	Publisher's Price.	Our Price.		Publisher's Price.	Our Price.
Advance	\$2 50	\$2 15	Household	\$1 00	\$ 85
American Agriculturist	1 50	1 10	Housekeeper	1 10	75
American Magazine	3 00	2 40	Irish American	2 50	2 15
American Poultry Yard	1 50	1 15	Irish World	2 50	2 15
American Poultriarian	4 00	3 00	Journal of Education, Boston	2 50	2 15
Arkansas Traveler	2 00	1 50	Judge	4 00	3 25
Art Amateur	4 00	3 50	Kansas City Times	1 00	85
Art Interchange	4 00	3 50	Life	5 00	4 00
75 cents extra in tubes.			Lippincott's Magazine	3 00	2 25
Arthur's Home Magazine	2 00	1 60	Magazine of America's History	5 00	4 25
Atlantic Monthly	4 00	3 35	Magazine of West'n History	4 00	3 25
Babyhood	1 50	1 15	Michigan Catholic	2 00	1 65
Ballou's Monthly	1 50	1 25	Michigan Farmer	1 25	1 10
Brainard's Musical World	1 50	1 10	Nation	3 00	2 85
Breeder's Gazette	3 00	2 15	New Orleans Picayune	1 50	1 15
Carpentry and Building	1 00	80	New York Graphic	2 50	1 70
Country Magazine	4 00	3 60	New York Independent	3 00	2 65
Chicago Herald	1 00	75	New York Ledger	3 00	2 50
Chicago Journal	1 00	85	New York Weekly	3 00	2 50
Chicago Inter-Ocean	1 00	85	North American Review	5 00	4 25
Chicago Ledger	1 50	1 25	Our Little Men and Women	1 00	90
Chicago News	1 00	80	Our Little Ones and Nursery	1 50	1 30
Chicago Times	1 00	85	Outing	3 00	2 50
Christian Union	3 00	2 65	Overland Monthly	4 00	3 25
Cincinnati Commercial Gazette	1 00	85	Pansy, Juvenile	1 00	90
Cincinnati Enquirer	1 15	1 00	Peek's Sun	2 00	1 75
Cincinnati Graphic-News	4 00	3 25	Penman's Art Journal	1 00	80
Cincinnati Times	1 00	85	Peterson's Magazine	2 00	1 45
Cosmopolitan	2 00	1 50	Popular Science Monthly	5 00	4 25
Country Gentleman	2 50	2 00	Poultry World	1 25	85
Current	4 00	3 25	Prairie Farmer	1 50	1 20
Demorest's Monthly	2 00	1 65	Puck (English or German)	5 00	4 00
Detroit Com'l Ad., with ticket	1 50	1 35	Public Opinion	3 00	2 50
Detroit Echo	1 00	75	Queries	1 00	90
Detroit Free Press, Mich. ed'n	1 00	85	Rural New Yorker	2 60	1 65
Detroit Free Press, Lit. ed'n	1 00	90	San Francisco Chronicle	1 50	1 25
Detroit Tribune	1 00	80	Saturday Evening Post	2 00	1 60
Education	3 00	2 40	Saturday Night	3 00	2 50
Family Story Paper	3 00	2 50	Science	3 50	3 00
Farmer's Review	1 25	1 10	Scientific American	3 20	2 75
Fireside Companion	3 00	2 50	Scribner's Magazine	3 00	2 60
Forum	5 00	4 25	Sporting Life	2 50	2 00
Frank Leslie's Ill. Newspaper	4 00	3 40	Sporting News	2 00	1 75
Frank Leslie's Pop'lar M'ly	3 00	2 55	St. Nicholas	3 00	2 65
Frank Leslie's Sunday Mag	2 50	2 15	St. Louis Globe-Democrat	1 00	85
Gleason's Home Circle	2 00	1 15	St. Louis Republican	1 00	85
God-y's Lady's Book	2 00	1 65	Standard (Chicago)	2 50	2 25
Golden Argosy	3 00	2 50	Texas Siftings	4 00	3 50
Golden Days	3 00	2 50	Toledo Blade	1 00	95
Harper's Bazar	4 00	3 35	Toronto Globe	1 00	85
Harper's Monthly	4 00	3 15	Turf, Field and Farm	5 00	4 65
Harper's Weekly	4 00	3 35	Vick's Illustrated Monthly	1 25	1 00
Harper's Young People	2 00	1 65	Waverly Magazine	4 00	3 65
Horseman	4 00	3 25	Wide Awake	2 40	2 10

Address all orders to

KELTON & CO.,
QUINCY, MICHIGAN.

MICHIGAN CENTRAL

"THE NIAGARA FALLS ROUTE."

The Great Central Route

To CANADA,

THE ST. LAWRENCE,

WHITE MOUNTAINS,

THE HUDSON,

New York, Boston, and New England Points.

THE MICHIGAN CENTRAL is the only real "Niagara Falls Route" in the country. It is the only railroad that gives a satisfactory view of the Falls. Every day train stops from 5 to 10 minutes at Falls View, which is what the name indicates—a splendid point from which to view the great cataract. It is right on the brink of the grand canyon, at the Canadian end of the Horseshoe, and every part of the Falls is in plain sight. Even if one is too ill to get out of the car, he can see the liquid wonder of the world from the window or the platform. There is but one Niagara Falls on earth, and but one direct railway to it.

O. W. RUGGLES,

General Passenger Agent.

THE
Commercial Hotel.

C. W. DABB & CO., Proprietors.

ACCOMMODATIONS FOR FIVE HUNDRED GUESTS.



**Corner Lake and Dearborn Streets,
CHICAGO.**

The location is most accessible to Depots, Steamboat Landings, Theatres, Public Buildings, Parks, and all objects of interest. Full South and East Fronts, Passenger Elevator, Electric Lights and all Modern Improvements.

TERMS, \$2.00 AND \$2.50 PER DAY, INCLUDING MEALS.

**Supper, Lodging and Breakfast, \$1.50. Lodging and Breakfast, \$1.00.
Meals, 50 Cents Each.**

The Handsomest Trains in the World

THE

PULLMAN VESTIBULE TRAINS

NOW RUNNING BETWEEN

CHICAGO

AND

KANSAS CITY

OVER THE NEW

“Santa Fe Route.”

Chicago, Santa Fe & California R'y.

Office 212 Clark Street, Corner Adams Street,

CHICAGO.

orld

Y

R'y.

t,

HISTORY

OF

Detroit and Michigan

By SILAS FARMER, City Historiographer.

(By Appointment under Ordinance of 1865).

Member of American Historical Association, Webster Historical Society,
Michigan Pioneer Society, etc.

It contains 1072 pages in double columns, quarto form, with 648 illustrations, consisting of fac-similes of a variety of Old Records, Documents, Signatures, Hand-Bills, Noted Localities, representations of Seals, Monuments, Banners and relics of various kinds, together with a large number of maps and plans.

In range of subjects and fullness of treatment it is the most complete local history published in America. FULLY ONE-THIRD OF THE VOLUME IS DEVOTED TO MATTERS THAT RELATE TO MICHIGAN IN GENERAL, AND THE INFORMATION IS NEW AND SINGULARLY INTERESTING.

IN EVERY LIBRARY THE LIST OF VOLUMES ON MICHIGAN AND DETROIT IS PARTICULARLY MEAGRE; THIS HISTORY WILL AMPLY MEET THIS WANT, AND, AS A WORK OF REFERENCE, NO OTHER VOLUME CAN TAKE ITS PLACE.

Over ten years of labor were spent upon the work, no expense was spared in its preparation, and it unfolds a large amount of authentic and surprising information hitherto unpublished and unknown.

It is printed on seventy pound super-sized and extra highly calendered paper, and is elegantly bound in genuine Turkey morocco, with cloth sides and appropriate stamps and tool work in gold.

The price is \$10. In order to treat home and foreign customers alike, the postage or expressage is paid to any part of the country.

THE SPORTSMAN'S LINE TO THE SPORTSMAN'S PARADISE!

DETROIT & CLEVELAND STEAM NAVIGATION CO.

FROM
CLEVELAND AND DETROIT
TO
MACKINAC ISLAND
AND
THE HUNTING AND FISHING RESORTS OF NORTHERN MICHIGAN.

Lake Tours! Palace Steamers! Low Rates! Quick Time!

STEAMERS

City of Alpena, City of Mackinac

Four Trips per Week Between

DETROIT, MACKINAC, ST. IGNACE, CHEBOYGAN, ALPENA, HARRISVILLE,
OSCODA, SAND BEACH, PORT HURON, ST. CLAIR,
OAKLAND AND MARINE CITY.

LEAVE DETROIT MONDAYS AND SATURDAYS - 10 P. M. WEDNESDAYS AND FRIDAYS - 9 A. M.
ARRIVE MACKINAC WEDNESDAYS AND MONDAYS 7 A. M. THURSDAYS AND SATURDAYS 5.30 P. M.

Close Connections with Steamers for

Chicago, Milwaukee, Traverse City, Charlevoix, Petoskey, Harbor Springs,
Sault Ste. Marie, Marquette, Portage, Duluth, and with Duluth,
South Shore & Atlantic R. R. for Marquette
and the Copper Regions.

STEAMERS

City of Cleveland, : City of Detroit

Every Week Day Between

CLEVELAND AND DETROIT.

LEAVE CLEVELAND - - - 8.30 P. M. | ARRIVE DETROIT - - - 5.30 A. M.
LEAVE DETROIT - - - 10.00 P. M. | ARRIVE CLEVELAND - - - 5.30 A. M.

Special Sunday Night Trips July and August.

For Illustrated Book, Rates or Tickets, apply to your Ticket Agent or

Address **E. B. WHITCOMB,**

G. P. & T. A., DETROIT, MICH.

J. MURRAY BROWN.

WILL J. WILSON.

BROWN & WILSON,
ARTIST TAILORS

—AND—

Importers of Fine Woolens.

.....

224 WOODWARD AVENUE,

DETROIT, MICH.

.....

We would be pleased to have you call and inspect our
Selections.

ALL WORK FIRST-CLASS.

BEAUTIFULLY LEFT!

The man who wont use the latest approved methods and appliances in the conduct of his business. The CALIGRAPH Type-Writer is as much an essential to-day as the steel pen was 50 years ago; many then clung to the old quill pen. Who would think of doing so to-day? You may flatter yourself that you are saving the price of a machine, but others have made the price of theirs over and over again. In this age of Steam, Electricity and Pneumatic Appliances, things



won't wait for any one; you must get aboard or be left. Over 100,000 consider the CALIGRAPH Type-Writer essential. Does it not behoove you to consider the question of sparing yourself and higher priced labor by using the type-writer? Over 100,000 have studied the question and decided in favor of the TYPE-WRITER. If you want to look the matter up, send for circulars.

GEO. E. PADDOCK & CO.,

State Agents.

24 Congress St., cor. Griswold. - - DETROIT, MICH.

THE SUMMER TOURS

—OF THE—

MICHIGAN CENTRAL R.R.

And Connecting Lines to the

Rivers, Lakes, Mountains,
Springs and Seaside Resorts
of the North and East,

ARE THIS YEAR MORE COMPLETE THAN EVER BEFORE.

TO BOSTON AND PORTLAND

Through the WHITE MOUNTAINS.

TO NEW YORK

—VIA THE—

St. Lawrence, Lake Champlain, Lake George and the Hudson,

And numerous other Routes, for details of which see our
Summer Tourist Route and Rate Folder.

SPECIAL NOTICE.—Passengers ordering Sleeping Car accommodations should be particular to give Route, Train, Date and Destination. Write or telegraph to W. H. UNDERWOOD, Eastern Passenger Agent, No. 80 Exchange Street, Buffalo, N. Y.; C. A. WARREN, Passenger and Ticket Agent, 66 Woodward Avenue, corner Jefferson, Detroit, Mich., or Central Depot, foot of Third Street; Wm. GATES, Ticket Agent, 209 Boody House Block, Toledo, O.; C. LINCOLN, Michigan Central Depot, Chicago.

O. W. RUGGLES,

Gen'l Passenger Agent,

CHICAGO, ILL.

E. P. FOLEY. R. P. FOLEY.
Foley's **ART** Gallery

HEADQUARTERS FOR ALL KINDS OF

Photographic Views,
OIL AND WATER COLOR PAINTINGS.

Artists will go with parties to any point on or off Mackinac Island, to make special views on demand, for a reasonable compensation.

Steam Lapidary Machinery

In connection, for shaping and polishing Agates, many of which are found on this lapideous Island.

AGATE JEWELRY A SPECIALTY.

Do not fail to call and examine the many fine specimens of Northern Michigan Animals exhibited here free of charge.

FOLEY BROS., Prop's,

COR. FORT AND MAIN STREETS.

MACKINAC ISLAND.

LEY.

ery

'S,

ackinac

any of

mens of.
arge.

SLAND.

