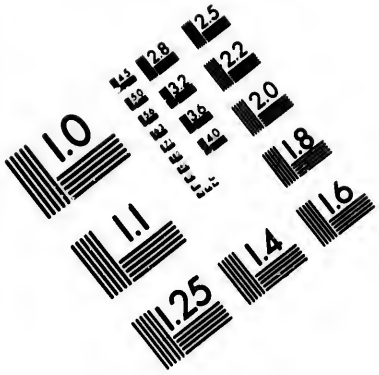

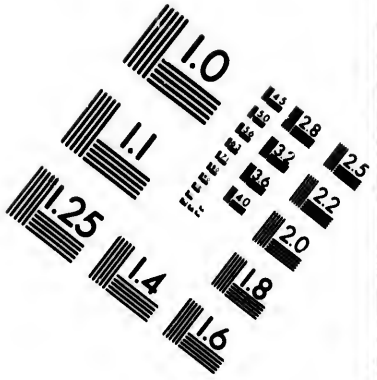

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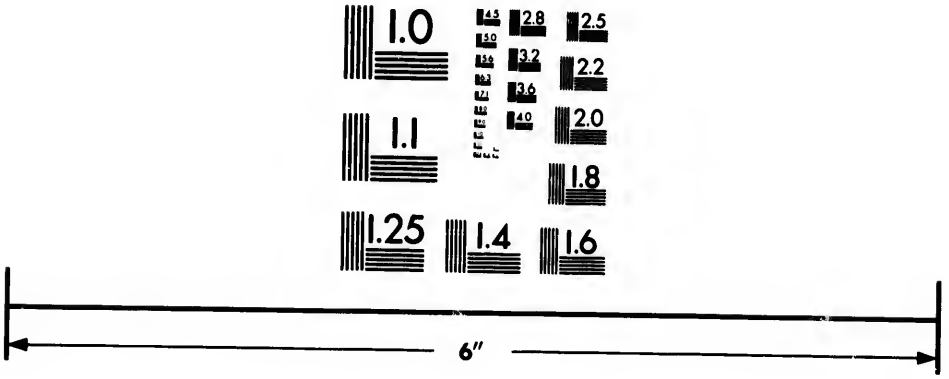
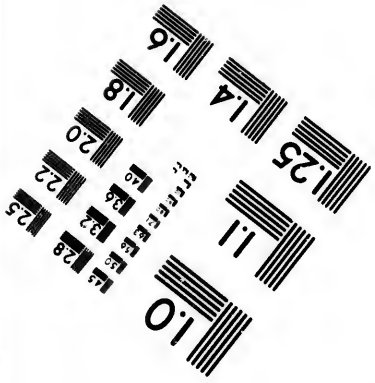
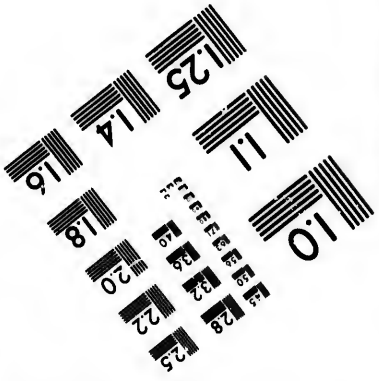
TEST TARGET (MT-3)







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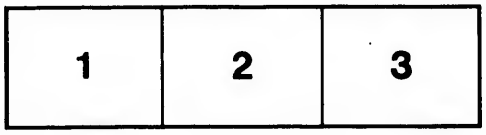

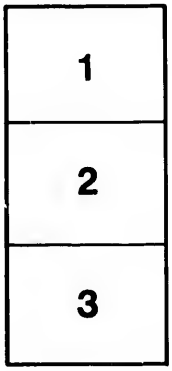

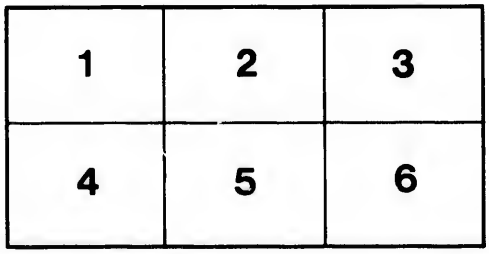

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TABLES,

SHOWING THE

DIFFERENCE OF LONGITUDE IN TIME,

AT THE

MOST IMPORTANT PLACES

BETWEEN THE

ATLANTIC AND PACIFIC OCEANS,

IN THE

BRITISH NORTH AMERICAN DOMINIONS,

AND THE

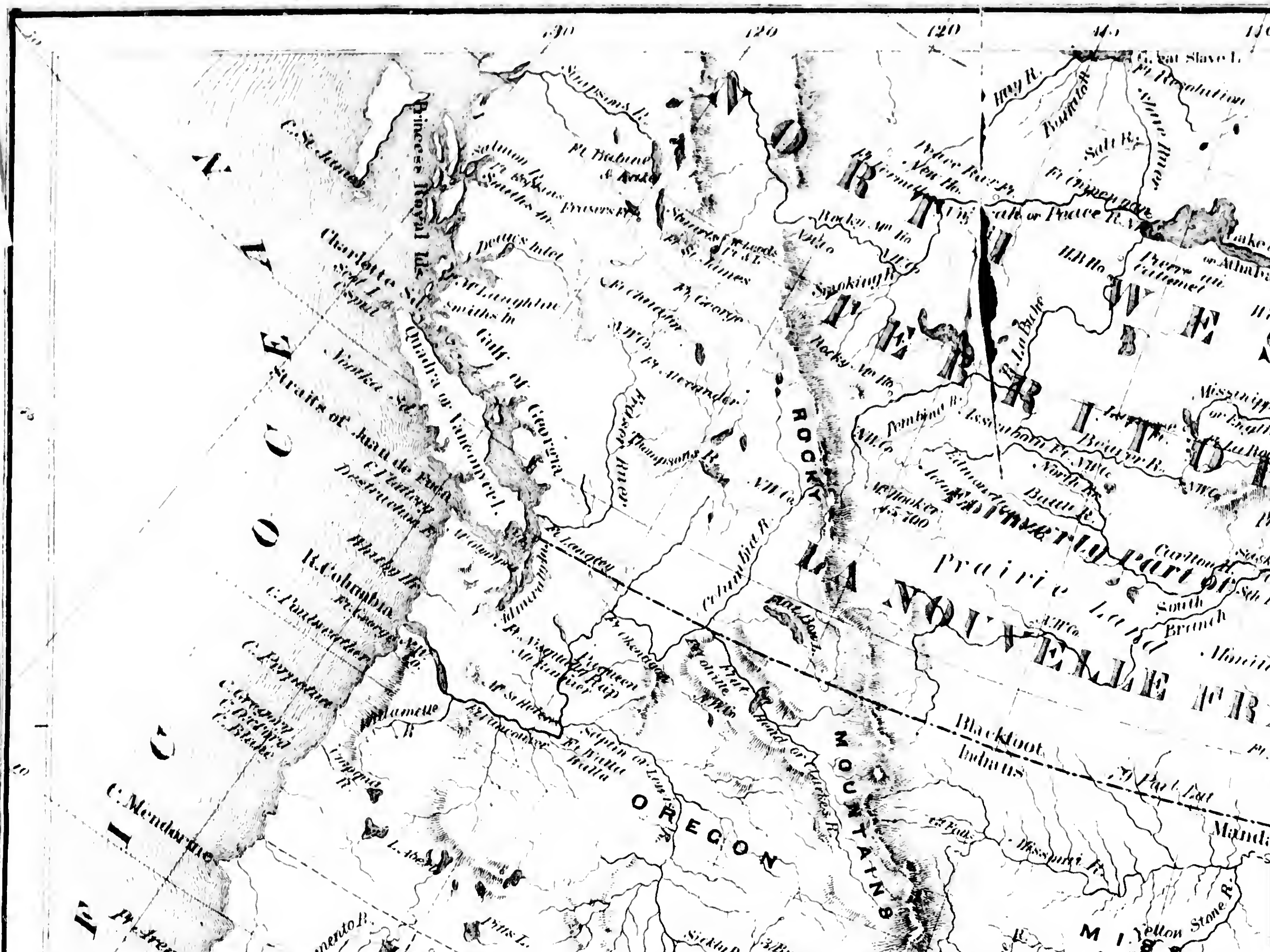
NORTHERN SECTION OF THE UNITED STATES.

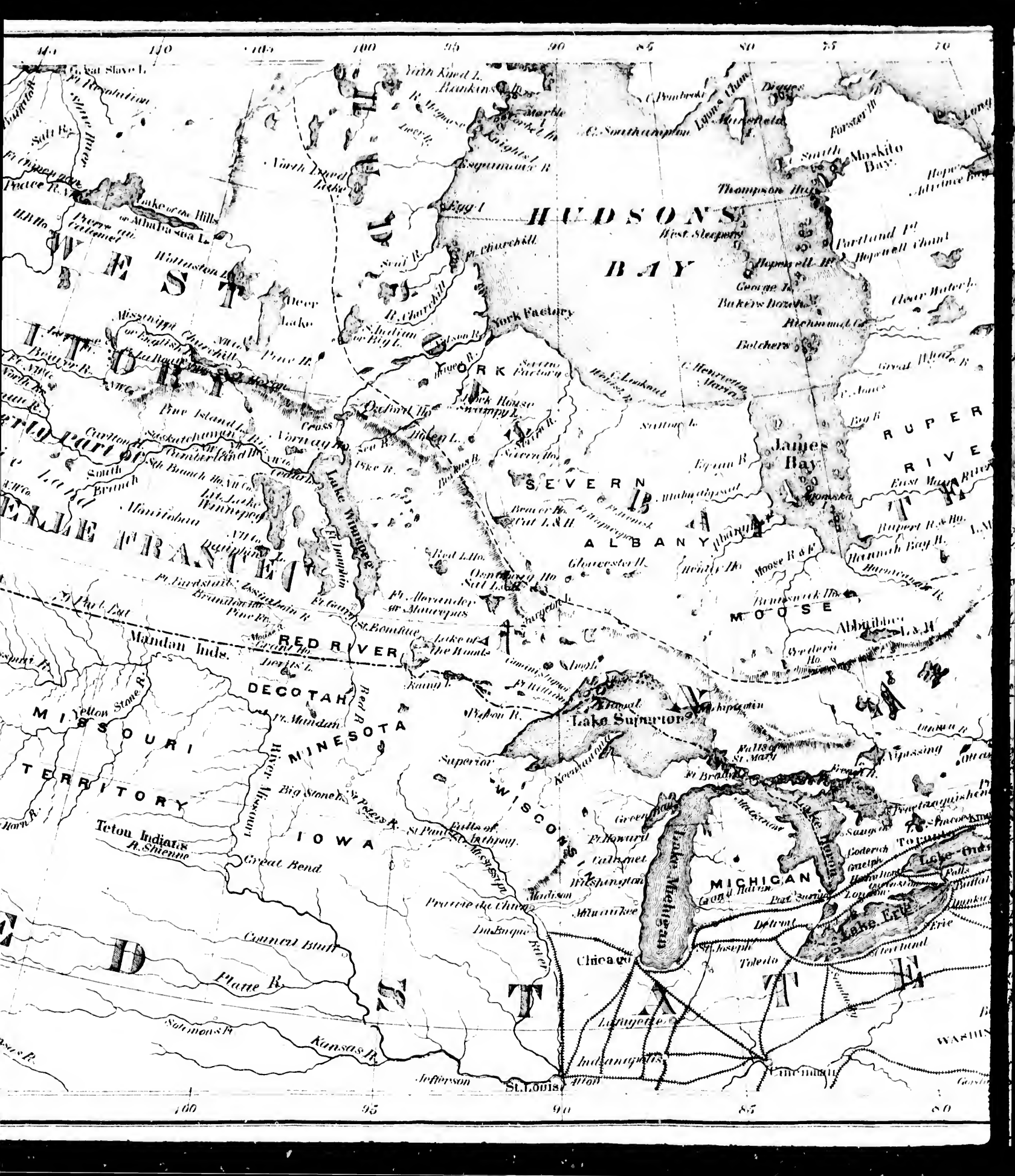
BY JOSEPH BOUCHETTE, ESQ., D.S.G., L.C.

THESE TABLES ARE CAREFULLY COMPUTED FROM THE LONGITUDE IN ARC OF EACH PLACE, DEDUCED FROM ASTRONOMICAL AND TRIGONOMETRICAL DATA, AND GEODETIC DIFFERENCES, COLLATERALLY WITH THE ASTRONOMICAL OBSERVATIONS OF THE AUTHOR IN CANADA.

TORONTO.

1857.


PACIFIC OCEAN
OREGON
CALIFORNIA
UTAH
MISSOURI TERRITORY
ROCKY MOUNTAINS
Straits of Juan de Fuca
R. Columbia
Gulf of Georgia
Quadra & Vancouver I.
Princess Royal Isl.
C. Mendocino
Pt. Arena
San Francisco
Bay of San Pedro
S. Gabriel
San Diego Bay
San Diego
Colorado
Sacramento R.
Pitts L.
Great Sandy Plain
Utah Lake
Willamette
Ft. Vancouver
Ft. Walla Walla
Ft. Langley
Columbia R.
Thompsons R.
Frasers R.
Ft. St. James
Ft. George
Ft. Alexandria
Ft. Hall
South Pass
Fremonts Peak
Sweet Water R.
Big Horn R.
Yellow Stone R.
Missouri R.
Arkansas R.
Blackfoot Indians
Prairie Land
Teton Indians
Smoking R.
Rocky Mtn. Ho.
Peace R.
Great Slave L.
Ft. Resolution
Ft. Chipewyan
Ft. Vermilion
Simpsons R.
Carlton H.
South Branch


HUDSONS BAY
WEST
INDIES
ATLANTIC
OCEAN
Great Slave L.
Athabasca L.
Lake of the Hills
Peace R.
Salt R.
Slave R.
Fort Resolution
Fort Chipewyan
Fort Vermilion
Fort Dunvegan
Fort Assiniboine
Fort Augustus
Fort Edmonton
Rocky Mountains
Mississippi or English R.
Churchill R.
Beaver R.
Pine Island L.
Cumberland House
Carlton House
Swan R.
Lake Winnipeg
Red River
Assiniboin R.
Fort Ellice
Fort Pelly
Fort Qu'Appelle
Fort Garry
Fort Alexander or Maurepas
Lake of the Woods
Fort Snelling
Fort Union
Fort Pierre
Fort Mandan
Mandan Inds.
Yellow Stone R.
Missouri R.
Big Stone L.
Prairie des Chiens
Fort Howard
Fort Winnebago
Fort Dearborn
Fort Wayne
Fort Miami
Fort Detroit
Fort Niagara
Fort Erie
Fort Gloucester
Fort Albany
Fort Severn
Fort Henrietta
Fort Nelson
Fort Liard
Fort Simpson
Fort Norman
Fort Good Hope
Fort Confidence
Fort Chipewyan
Fort Resolution
Fort Churchill
York Factory
Fort Severn
Fort Albany
Moose R. & F.
Abbitibbi L. & H.
Rupert R. & Ho.
Hannah Bay H.
James Bay
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Chicago
Detroit
Cleveland
Buffalo
Toronto
Kingston
Montreal
Quebec
Halifax
St. Louis
Indianapolis
Cincinnati
Louisville
Nashville
Washington
Philadelphia
New York
Boston
Portland
Hudsons Bay
Davis Strait
Labrador
Newfoundland
Nova Scotia
New Brunswick
Prince Edward Island
Anticosti
Gaspe
Cape Breton
Cape Race
Cape Ray
Cape Chidley
Cape Farewell
Cape Walsingham
Cape Henrietta Maria
Cape Jones
Cape Hope Advance
Cape Comfort
Cape Dobbin
Cape Perry
Cape Bathurst
Cape Parry
Cape Barrow
Cape Lisburne
Cape Prince of Wales
Cape Denbigh
Cape Newenham
Cape Romanzof
Cape Nome
Cape Lisburne
Cape Barrow
Cape Parry
Cape Bathurst
Cape Perry
Cape Dobbin
Cape Comfort
Cape Hope Advance
Cape Jones
Cape Henrietta Maria
Cape Walsingham
Cape Farewell
Cape Chidley
Cape Ray
Cape Race
Cape Breton
Gaspe
Anticosti
Prince Edward Island
New Brunswick
Nova Scotia
Newfoundland
Labrador
Davis Strait
Hudsons Bay
Portland
Boston
New York
Philadelphia
Washington
Nashville
Louisville
Cincinnati
Indianapolis
St. Louis
Jefferson
Kansas R.
Platte R.
Grand Island
Council Bluffs
Great Bend
Teton Indians
R. Shienne
Iowa
Minnesota
Wisconsin
Michigan
Territory
Missouri
Decotah
Red River
Assiniboin
Manitoban
Saskatchewan
Nelson R.
Severn R.
Albany
Moose
Rupert River
Rupert R. & Ho.
Hannah Bay H.
Abbitibbi L. & H.
Moose R. & F.
Gloucester H.
Albany
Severn
Henrietta Maria
Jones
Big I.
Charlton I.
Southampton I.
Mansfield I.
Digges
Resolution I.
Salisbury I.
Nottingham I.
Akpatok I.
Frobisher Bay
Cumberland Sound
Hudsons Strait
Ungava Bay
Leaf R.
Koksoak R.
George R.
Great Whale R.
Little Whale R.
Nastapoka Islands
Richmond Gulf
Belchers
Button Islands
Marble I.
Knight I.
Duke of York I.
Prince of Wales I.
Victoria I.
Boothia Felix
Melville Peninsula
Fury and Hecla Strait
Repulse Bay
Wager Inlet
Committee Bay
Chantrey Inlet
Back R.
Great Fish R.
Coppermine R.
Kent Peninsula
Victoria Land
Wollaston Land
Banks Land
Prince Patrick I.
Melville I.
Parry Islands
Barrow Strait
Lancaster Sound
Prince Regent Inlet
Admiralty Inlet
Navy Board Inlet
Baffins Bay
Smiths Sound
Jones Sound
Ellesmere Land
Grinnell Land
Grant Land
Greenland
Cape Farewell
Cape Walsingham
Cape Henrietta Maria
Cape Jones
Cape Hope Advance
Cape Comfort
Cape Dobbin
Cape Perry
Cape Bathurst
Cape Parry
Cape Barrow
Cape Lisburne
Cape Prince of Wales
Cape Denbigh
Cape Newenham
Cape Romanzof
Cape Nome


75
70
65
60
Forster H.
Long I.
Mistake I.
Cuttan P.
Kaipharuk
Pachaak
Nuttletarric
DAVIS Str.
C. Smith
Moskito Bay.
Hope's Advance Bay
Cary's Bay
C. Grenmungliu
Whale R.
Kokoxak R.
Portland Pt
Hopewell Chan!
Hopewell Isl.
S. Mackenzie L.
Clear Water L.
Richmond I.
Great Whale R.
L. Apiskaummish
C. Jones
Big I.
RUPERT
RIVER
L. Nichegamau
James Bay
East Main River
TERRITORY
Rupert R. & Ho.
L. Mistassini
Hannah Bay H.
Abbitibbee
L. & H.
Frederic Ho.
Tadousac
Islands
Gaspe
Pointe au Pere
R. du Loup
NEW BRUNSWICK
Fredericton
St. Thomas
Quebec
St. Lawrence R.
Mellonry
Woodstock
St. Andrews
Passport
Ottawa R.
Montreal
Sherbrooke
Augusta
Portland
Vipissing
Ottawa
Gananoque
Prescott
Oglesbury
Passamaquoddy Pt.
Penetanguishene
Kingston
Sackets Hr
Rutland
Springfield
Boston
Toronto
Oswego
Albany
Hamilton
Buffalo
Rochester
Dunkirk
Erie
New York
Long I.
Cleveland
Philadelphia
Delaware
Baltimore
WASHINGTON
Cincinnati
Gordonsville
Chesapeake
New York to Liverpool 3020
ATLANTIC
60
75

DAVIS' STS.
LABRADOR
To Liverpool 1970 M
White Bay
Trinity B.
To Galway 1720 M
St. Johns
C. Race
NEWFOUNDLAND
Anticosti I.
GULF OF ST. LAWRENCE
C. Ray
St. Pauls I.
Gaspe
Prince Edw.
Charlotte T.
C. Breton
Chatham
NEW BRUNSWICK
Fredericton
NOVA SCOTIA
Truro
Halifax
Woodstock
St. Andrews
Eastport
ATLANTIC OCEAN
Nantucket
New York to Liverpool 3020 M
MAP OF PART OF
NORTH AMERICA
BY
Joseph Bouchette. D.S.G.
1857
LITHOGRAPHED BY J. ELLIS, No 8 KING ST TORONTO.

INDEX TO THE TABLES.

METHOD OF USING THE TABLES.

To Find the Difference of Longitude in Time.

1. The difference of Longitude in Time between any two Places given in the Tables, is found at the intersection of the vertical and horizontal columns, opposite the names of the places.

EXAMPLE.—It is required to know the difference of time between Halifax and Portland. In the column under the first and opposite the latter named place in Table, I. 2*m.* 40*s* is the difference of time required.

To Find the Longitude of the Place.

Add the difference of Longitude in Time found under the first column and opposite the place named, to the Longitude in Time of the place given at the head of each Table, and the sum will be the Longitude required.

EXAMPLE.—Required, the Longitude of Port Hope,	*h*	*m*	*s*
Difference of Time by Table III.....	0	18	58
Add Longitude of Montreal in Time.....	4	54	17
Longitude of Port Hope in Time.....	5	13	15

To Find the Time of Day.

Having by the Electro-Magnetic Telegraph, Clock Time at any place named in the Tables, the time of day at any other place named in the Tables may be easily found by adding, if the place be east, or substracting if the place be west of that Telegraph Station, the difference of Time found in the Tables.

EXAMPLE.—At Chatham, U.C., suppose you have by Telegraph,

	h	*m*	*s*	
Clock Time at Toronto.....	11	40	0	A. M.
Difference of Time by Table IV., substract.....	0	10	55	
Local Time at Chatham.....	11	29	5	A. M.
Or if at Hamilton you have the Time at Windsor,.....	2	30	30	P. M.
Difference of Time by Table IV., add.....	0	13	0	
Local Time at Hamilton,.....	2	43	30	P. M.

General Rules.

When it is noon at the head place in either of the Tables, the difference of time found in that column gives the time before noon at any of the other places, or *vice versa*, when it is noon at the the place at foot, the difference of Longitude in time will be the time after the mean noon at the places in the columns to the left.

If any place named in the Tables be assumed as the meridian at noon, mean Solar time, the difference of time given by the Table, between it and any other place named in the Tables, will be the time after or before noon at any such other place, according as it is situate to the east or west of that meridian.

The Longitude in Arc may be found by converting the time into Arc by the usual Tables, or by the following simple Rule:—

Multiply the Longitude in Arc by 4 and divide by 60, or *vice versa*, multiply the time by 60 and divide by 4.

NOTE.—The difference of Longitude obtained by these Tables is to the nearest 5 seconds of time.

TABLE

NS, NEWF

ITUDE WEST FROM

52° 42′ 30″ in .

3*h* 30*m* 59*s* in T

d.)

ton, (Little Fall

, Lt. H.

s								
15	Trois Pistol							
	h	*m*	*s*					
40	0	1	25	Fra				
	h	*m*						
55	0	3	40	0				
25	0	5	10	0				
5	0	5	50	0				
45	0	6	30	0				
55	0	8	40	0				
15	0	9	0	0				

St. Johns, Newfoundland.	Belle Isle, Lt. H.	Blanc Sablon, (Eastern Limit of Canada, Labrador.)	Charlottetown, P. E. I.	Halifax, N. S.	Percé, (Gaspé.)	St. Johns, N. B.	Fredericton, N.B.	St. Andrews, N. B.	Colebrooke, (Grand	Metis, (Ken	Hea
h m	*h m s*	*h m s*	*h m s*	*h m s*	*h m s*	*h m s*	*h m s*	*h m s*	*h m s*	*h m s*	*h m*
0 10 40											
0 17 40	0 7 0										
0 41 50	0 31 10	0 24 10									
0 43 30	0 32 50	0 25 50	0 1 40								
0 46 10	0 35 30	0 28 30	0 4 20	0 2 40							
0 53 25	0 42 45	0 35 45	0 11 35	0 9 55	0 7 15						
0 55 45	0 45 5	0 38 5	0 13 55	0 12 15	0 9 35	0 2 20					
0 57 25	0 46 45	0 39 45	0 15 35	0 13 55	0 11 15	0 4 0	0 1 40				
1 0 20	0 49 40	0 42 40	0 18 30	0 16 50	0 14 10	0 6 55	0 4 35	0 2 55			
1 1 55	0 51 15	0 44 15	0 20 5	0 18 25	0 15 45	0 8 30	0 6 10	0 4 30	0 1 35		
1 2 40	0 52 0	0 45 0	0 20 50	0 19 10	0 16 30	0 9 15	0 6 55	0 5 15	0 2 20	0 0 45	
1 4 45	0 54 5	0 47 5	0 22 55	0 21 15	0 18 35	0 11 20	0 9 0	0 7 20	0 4 25	0 2 50	0
1 6 0	0 55 20	0 48 20	0 24 10	0 22 30	0 19 50	0 12 35	0 10 15	0 8 35	0 5 40	0 4 5	0
1 7 25	0 56 45	0 49 45	0 25 35	0 23 55	0 21 15	0 14 0	0 11 40	0 10 0	0 7 5	0 5 30	0
1 8 40	0 58 0	0 51 0	0 26 50	0 25 10	0 22 30	0 15 15	0 12 55	0 11 15	0 8 20	0 6 45	0
1 10 10	0 59 30	0 52 30	0 28 20	0 26 40	0 24 0	0 16 45	0 14 25	0 12 45	0 9 50	0 8 15	0
1 10 50	1 0 10	0 53 10	0 29 0	0 27 20	0 24 40	0 17 25	0 15 5	0 13 25	0 10 30	0 8 55	0
1 11 30	1 0 50	0 53 50	0 29 40	0 28 0	0 25 20	0 18 5	0 15 45	0 14 5	0 11 10	0 9 35	0
1 13 40	1 3 0	0 56 0	0 31 50	0 30 10	0 27 10	0 20 15	0 17 55	0 16 15	0 13 20	0 11 45	0
1 14 0	1 3 20	0 56 20	0 32 10	0 30 30	0 27 30	0 20 35	0 18 15	0 16 35	0 13 40	0 12 5	0

ST.

TABLE I.

ST. JOHNS, NEWFOUNDLAND.

LONGITUDE WEST FROM GREENWICH.

52° 42′ 30″ in Arc.

3*h* 30*m* 50*s* in Time.

.B.													
ews, N. B.													
olebrooke, (Grand Falls.)													
m *s* 1 35	Metis, (Kempt Road.)												
2 20	*h* *m* *s* 0 0 45	Headmondston, (Little Falls.)											
4 25	0 2 50	*h* *m* *s* 0 2 5	Bic, Lt. H.										
5 40	0 4 5	0 3 20	*h* *m* *s* 0 1 15	Trois Pistoles.									
7 5	0 5 30	0 4 45	0 2 40	*h* *m* *s* 0 1 25	Fraserville, (Riviere du Loup,) Tadousac.								
8 20	0 6 45	0 6 0	0 3 55	0 3 40	*h* *m* *s* 0 1 15	Kamouraska.							
9 50	0 8 15	0 7 30	0 5 25	0 5 10	0 2 45	*h* *m* *s* 0 1 30	Portland, Me.						
10 30	0 8 55	0 8 10	0 6 5	0 5 50	0 3 25	0 2 10	*h* *m* *s* 0 0 40	Eboulements.					
11 10	0 9 35	0 8 50	0 6 45	0 6 30	0 4 5	0 2 50	0 1 20	*h* *m* *s* 0 0 40	Montmagny, (St. Thomas.)				
13 20	0 11 45	0 11 0	0 8 55	0 8 40	0 6 15	0 5 0	0 3 30	0 2 50	*h* *m* *s* 0 2 10	Boston.			
13 40	0 12 5	0 11 20	0 9 15	0 9 0	0 6 35	0 5 20	0 3 50	0 3 10	0 2 30	*h* *m* *s* 0 0 20	Quebec.		

QUEBEC.					
m. *s.*					
2 30	Island Pond, Vt.				
	m. *s.*				
2 50	0 20	SHERBROOKE,			
		m. *s.*			
3 0	0 30	0 10	Brompton		
			m. *s.*		
3 45	1 15	0 55	0 45	Me	
				m.	
4 25	1 55	1 35	1 25	0 4	
5 40	3 10	2 50	2 40	1 5	
7 0	4 30	4 10	4 0	3 1	
7 30	5 0	4 40	4 30	3 -	
8 0	5 30	5 10	5 0	4 1	
8 15	5 45	5 25	5 15	4 -	
8 45	6 15	5 55	5 45	5	
8 57	6 27	6 7	5 57	5	
9 27	6 55	6 37	6 27	5	

TABLE II.

QUEBEC CITADEL.

LONGITUDE WEST OF GREENWICH.

71° 12′ 30″ in Arc.

4*h* 44*m* 50*s* in Time.

sland Pond, Vt.										
s. 20	SHERBROOKE, Portneuf.									
30	m. s. 0 10	Brompton Falls, Metabetchouan, (Lake St. John.)								
15	0 55	m. s. 0 45	Melbourne, Stanstead, St. Casimir.							
55	1 35	1 25	m. s. 0 40	THREE RIVERS.						
10	2 50	2 40	1 55	m. s. 1 15	Sutton, Springfield, Mass.					
30	4 10	4 0	3 15	2 35	m. s. 1 20	St. Hyacinthe, Stanbridge E.				
0	4 40	4 30	3 45	3 5	1 50	m. s. 0 30	Maskinonge', Philipsburg.			
30	5 10	5 0	4 15	3 35	2 20	1 0	m. s. 0 30	Berthier, Sorel, St. Hilaire, Rutland, Vt.		
45	5 25	5 15	4 30	3 50	2 53	1 15	1 0	m. s. 0 15	St. Johns, Burlington, Vt.	
15	5 55	5 45	5 0	4 20	3 5	1 45	1 15	0 45	m, s. 0 30	St. Bruno, Rouse's Point.
27	6 7	5 57	5 12	4 32	3 17	1 57	1 27	0 57	0 42	m. s. 0 12 L'Assomption, Industry.
55	6 37	6 27	5 42	5 2	3 47	2 27	1 57	1 27	1 12	0 42 m. s. 0 30 MONTREAL.

[illegible]	[illegible]	[illegible]	20	1	40	0 10	AMHERSTBURG.

TABLE

MONTREAL (CA

LONGITUDE WEST FROM (

73° 34′ 15″ in A

$4h\ 54m\ 17s$ in T

MONTREAL.

0 33	Terrebonne, ALBANY, N. Y.																
1 28	0 55	St. Eustache.															
1 43	1 10	0 15	NEW YORK.														
2 28	1 55	1 0	0 45	Coteau du Lac, Huntingdon.													
4 13	3 40	2 45	2 30	1 45	Grenville, St. Regis.												
4 38	4 5	3 10	2 55	2 10	0 25	Cornwall, L'[illegible]gnal.											
6 15	5 42	4 47	4 32	3 47	2 2	1 37	PHILADELPHIA.										
7 48	7 15	6 20	6 5	5 20	3 35	3 10	1 33	Prescott, Ogdensburg.									
8 33	8 0	7 5	6 50	6 5	4 20	3 55	2 18	0 45	Brockville.								
8 38	8 5	7 10	6 55	6 10	4 25	4 0	2 23	0 50	0 5	OTTAWA City.							
9 38	9 5	8 10	7 55	7 10	5 25	5 0	3 23	1 50	1 5	1 0	Aylmer, Merricksville, Mallory						
10 28	9 55	9 0	8 45	8 0	6 15	5 50	4 13	2 40	1 55	1 50	0 50	Gananoque, Sackets Ha					
10 48	10 15	9 20	9 5	8 20	6 35	6 10	4 33	3 0	2 15	2 10	1 10	0 20	Perth.				
11 8	10 35	9 40	9 25	9 40	6 55	6 30	4 53	3 20	2 35	2 30	1 30	0 40	0 20	Arnprior,			
11 48	11 15	10 20	10 5	9 20	7 35	7 10	5 33	4 0	3 15	3 10	2 10	1 20	1 0	0 40	Ki		
12 58	12 25	11 30	11 15	10 30	8 45	8 20	6 43	5 10	4 25	4 20	3 20	2 30	2 10	1 50	1		
13 18	12 45	11 50	11 35	10 50	9 5	8 40	7 3	5 30	4 45	4 40	3 40	2 50	2 30	2 10	1		
14 23	14 50	12 55	12 40	11 55	10 10	9 45	8 8	6 35	5 50	5 45	4 45	3 55	3 35	3 15	2		
15 33	15 0	14 5	13 50	13 5	11 20	10 55	9 18	7 45	7 0	6 55	5 55	5 55	4 45	4 25	3		
17 28	16 55	16 0	15 45	15 0	13 15	12 50	11 13	9 40	8 55	8 50	7 50	7 0	6 40	6 20	5		
18 58	18 25	17 30	17 15	16 30	14 45	14 20	12 43	11 10	10 25	10 20	9 20	8 30	8 10	7 50	7		
20 43	20 10	19 15	19 0	18 15	16 30	16 5	14 28	12 55	12 10	12 5	11 5	10 15	9 55	9 35	8		
21 18	20 45	19 50	19 35	18 50	17 5	16 40	15 3	13 30	12 45	12 40	11 40	10 50	10 30	10 10	9		
21 28	20 55	20 0	19 45	19 0	17 15	16 50	15 13	13 40	12 55	12 50	11 50	11 0	10 40	10 20	9		
21 58	21 25	20 30	20 15	19 30	17 45	17 20	15 43	14 10	13 25	13 20	12 20	11 30	11 10	10 50	10		
22 43	22 10	21 15	21 0	20 15	18 30	17 55	16 18	14 55	14 10	14 5	13 5	12 15	11 55	11 35	10		
23 13	22 40	21 45	21 30	20 45	19 0	18 25	16 48	15 25	14 40	14 35	13 35	12 45	12 25	12 5	11		

TABLE III.

ONTREAL (CATHEDRAL.)

LONGITUDE WEST FROM GREENWICH.

73° 34′ 15″ in Arc.
4*h* 54*m* 17*s* in Time.

Merricksville, Mallory.

manoque, Sackets Harbour.

s 20	Perth.											
m s 0 20	Arnprior, Cape Vincent, Newboro,											
m s 0 40	KINGSTON, Oswego, N. Y.											
m s 1 10	WASHINGTON, VA.											
m s 0 20	Pembroke.											
m s 1 5	Belleville.											
m s 1 10	Brighton, Rochester, N. Y.											
m s 1 55	Cobourg.											
m s 1 30	Port Hope, Peterborough.											
m s 1 45	Bowmanville, Mattawan Forks (Ottawa.)											
m s 0 35	BUFFALO, N. Y.											
m s 0 10	Whitby, Fort Erie.											
m s 0 30	Suspension Bridge, (Niagara.)											
m s 0 45	Port Colborne, Port Dalhousie.											
m s 0 30	TORONTO.											

s. Thomas.

Saugeen.

laide, Clea

le, Bosanq

ewsbury, I

s.			
5	CHATHA		
	m	s.	
0	1	25	Po
	m		
0	1	55	0
0	2	35	1
0	4	5	2
0	4	15	2

. Thomas.

Saugeen.

laide, Clearville, Cleveland, (Ohio.)

le, Bosanquet.

ewsbury, Rondeau, Port Franks.

s.											
5	CHATHAM, Erieus, Errol.										
	m	s									
0	1	25	PORT SARNIA, Romney, Wallaceburg.								
	m	s									
0	1	55	0	30	Mercea, Tecumseh.						
	m	s									
0	2	35	1	10	0	40	Belle River, Sandusky, (Ohio.)				
	m	s									
0	4	5	2	40	2	10	1	30	Windsor, DETROIT, (Mich.)		
	m	s									
0	4	15	2	50	2	20	1	40	0	10	AMHERSTBURG.

TORONTO.

m	s		m	s		m	s		m	s		m	s		m	s		m	s		m	s		m	s	
0	55	Port Credit, Grimsby, Dunnville.																								
2	0		1	5	HAMILTON, Cayuga.																					
2	30		1	35		0	30	Penetanguishene.																		
2	50		1	55		0	50		0	20	Erie, Pa.															
3	25		2	30		1	25		0	55		0	35	Port Dover.												
3	35		2	40		1	35		1	5		0	45		0	10	Brantford, Guelph, Collingwood.									
3	45		2	50		1	45		1	15		0	55		0	20		0	10	SIMCOE.						
4	10		3	15		2	10		1	40		1	10		0	45		0	35		0	25	Paris, Fergus.			
4	40		3	45		2	40		2	10		1	40		1	15		1	5		0	55		0	30	Princeton, Nor
5	40		4	45		3	40		3	10		2	50		2	15		2	5		1	55		1	30		1	0	Woodst
6	30		5	35		4	30		4	0		3	40		3	5		2	55		2	45		2	20		1	50		0	50	St
7	35		6	40		5	35		5	5		4	45		4	10		4	0		3	50		3	25		2	55		1	55	1
8	5		7	10		6	5		5	35		5	15		4	40		4	30		4	20		3	55		3	25		2	25	1
9	30		8	35		7	30		7	0		6	40		6	5		5	55		5	45		5	20		4	50		3	50	3
9	45		8	50		7	45		7	15		6	55		6	20		6	10		6	0		5	35		5	5		4	5	3
10	30		9	35		8	30		8	0		7	40		7	5		6	55		6	45		6	20		5	50		4	50	4
10	55		10	0		8	55		8	25		8	5		7	30		7	20		7	10		6	45		6	15		5	15	4
12	20		11	25		10	20		9	50		9	30		8	55		8	45		8	35		8	10		7	40		6	40	5
12	50		11	55		10	50		10	20		10	0		9	25		9	15		9	5		8	40		8	10		7	10	6
13	30		12	35		11	30		11	0		10	40		10	5		9	55		9	45		9	20		8	50		7	50	7
15	0		14	5		13	0		12	30		12	10		11	35		11	25		11	15		10	50		10	20		8	20	8
15	10		14	15		13	10		12	40		12	20		11	45		11	35		11	25		11	0		10	30		9	30	8

TAB

TORONTO, (Y

LONGITUDE WEST

79° 22′ 30

5*h* 17*m* 30

TABLE IV.

TORONTO, (YONGE STREET WHARF.)

LONGITUDE WEST FROM GREENWICH.

79° 22′ 30″ in Arc.

5*h* 17*m* 30*s* in Time.

ph, Collingwood.

ris, Fergus.

											s 30	Princeton, Norwich, Arthur.
										m 1	s 0	Woodstock.
									m 0	s 50		Stratford.
								m 1	s 5			London, Port Stanley, St. Thomas.
							m 0	s 30				Lobo, Port Talbot, Saugeen.
						m 1	s 25					Goderich, Adelaide, Clearville, Cleveland, (Ohio.)
					m 0	s 15						Wardsville, Bosanquet.
				m 0	s 45							Shrewsbury, Rondeau, Port Franks.
			m 0	s 25								Chatham, Erieus, Errol.
		m 1	s 25									Port Sarnia, Romney, Wallaceburg.
	m 0	s 30										Mercea, Tecumseh.
m 0	s 40											Belle River, Sandusky, (Ohio.)
m 1	s 30											Windsor, Detroit,(Mich.)
m 0	s 10											Amherstburg.

30												
20	1 50											
25	2 55	1 55	1 5									
55	3 25	2 25	1 35	0 30								
20	4 50	3 50	3 0	1 55	1 25							
35	5 5	4 5	3 15	2 10	1 40	0 15						
20	5 50	4 50	4 0	2 55	2 25	1 0	0 45					
45	6 15	5 15	4 25	3 20	2 50	1 25	1 10	0 25				
10	7 40	6 40	5 50	4 45	4 15	2 50	2 35	1 50	1 25			
40	8 10	7 10	6 20	5 15	4 45	3 20	3 5	2 20	1 55	0 30		
20	8 50	7 50	7 0	5 55	5 25	4 0	3 45	3 0	2 35	1 10	0 40	
50	10 20	8 20	8 30	7 25	6 55	5 30	5 15	4 30	4 5	2 40	2 10	1 30
0	10 30	9 30	8 40	7 35	7 5	5 40	5 25	4 40	4 15	2 50	2 20	1 40

perieur,

s.

St. Boniface, (Re

h	m	s	Rocky M			
0	56	0				
1	41	40	0	45	40	S
1	48	40	0	52	40	0
2	6	0	1	10	0	0

perieur,

s.

St. Boniface, (Red River.)

h m s			
0 56 0	Rocky Mountains, 49° Parallel.		
h m s	h m s		
1 41 40	0 45 40	San Francisco, (California.)	
h m s	h m s	h m s	
1 48 40	0 52 40	0 7 0	Fort George, (Oregon.)
h m s	h m s	h m s	h m s
2 6 0	1 10 0	0 24 20	0 17 20 VANCOUVERS, N. N. W. Ext'y.

TABL

DETROIT

LONGITUDE WEST FRO

83° 7′ 30″ i

5h 32m 30s

Detroit.												
h m s	Toledo, (Ohio.)											
0 1 35	h m s	Dexter, Mich.										
0 3 10	0 1 35	h m s	Cincinnati.									
0 4 50	0 3 15	0 1 40	h m s	Sault Ste. Marie, Fort Brady, Jackson, (Michigan,								
0 5 30	0 3 55	0 2 20	0 0 40	h m s	Kalamazoo, Mich.							
0 10 10	0 8 35	0 7 0	0 5 20	0 4 40	h m s	Grand Haven.						
0 12 50	0 11 15	0 9 40	0 8 0	0 7 20	0 2 40	h m s	Chicago.					
0 18 50	0 17 15	0 15 49	0 14 0	0 13 20	0 8 40	0 6 0	h m s	Milwaukie.				
0 19 50	0 18 15	0 16 40	0 15 0	0 14 20	0 9 40	0 7 0	0 1 0	h m s	Fort Willia			
0 25 24	0 23 49	0 22 14	0 24 34	0 19 54	0 15 14	0 12 34	0 6 34	0 5 34	h m s	St		
0 29 30	0 27 55	0 27 20	0 24 40	0 24 0	0 19 20	0 16 40	0 10 40	0 9 40	0 4 6	h		
0 36 42	0 35 7	0 33 32	0 31 52	0 31 12	0 26 32	0 23 52	0 17 52	0 16 52	0 11 18	0		
0 39 30	0 37 55	0 36 20	0 34 40	0 34 0	0 29 20	0 26 40	0 20 40	0 19 40	0 14 6	0		
0 55 30	0 53 55	0 52 20	0 50 40	0 50 0	0 45 20	0 42 40	0 36 40	0 35 40	0 30 6	0		
1 51 30	1 49 55	1 48 20	1 46 40	1 46 0	1 41 20	1 38 40	1 32 40	1 31 40	1 26 6	1		
2 37 10	2 35 35	2 34 0	2 32 20	2 31 40	2 27 0	2 24 20	2 18 20	2 17 20	2 11 46	2		
2 44 10	2 42 35	2 41 0	2 39 20	2 38 40	2 34 0	2 31 20	2 25 20	2 24 20	2 18 46	2		
3 1 30	2 59 55	2 58 20	2 56 04	2 56 0	2 51 20	2 48 40	2 42 40	2 41 40	2 36 6	2		

TABLE V.

DETROIT, (Centre.)

LONGITUDE WEST FROM GREENWICH.

83° 7′ 30″ in Arc.

5*h* 32*m* 30*s* in Time.

ckson, (Michigan.)

o.

Milwaukie.

h *m* *s*												
0 5 34	Fort William, (L. Superior.)											
h *m* *s*	*h* *m* *s*											
0 9 40	0 4 6	St. Louis.										
h *m* *s*	*h* *m* *s*	*h* *m* *s*										
0 16 52	0 11 18	0 7 12	Fond du Lac Superieur.									
h *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*									
0 19 40	0 14 6	0 10 0	0 2 48	St. Pauls.								
h *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*								
0 35 40	0 30 6	0 26 0	0 18 48	0 16 0	St. Boniface, (Red River.)							
h *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*							
1 31 40	1 26 6	1 22 0	1 14 48	1 12 0	0 56 0	Rocky Mountains, 49° Parallel.						
h *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*						
2 17 20	2 11 46	2 7 40	2 0 28	1 57 40	1 41 40	0 45 40	San Francisco, (California.)					
h *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*					
2 24 20	2 18 46	2 14 40	2 7 28	2 4 40	1 48 40	0 52 40	0 7 0	Fort George, (Oregon.)				
h *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*	*h* *m* *s*				
2 41 40	2 36 6	2 32 0	2 24 48	2 22 0	2 6 0	1 10 0	0 24 20	0 17 20	Vancouvers, N. N. W. Ext'y.			

, Mich.

Chicago.		
h m s 0 36 40		St. Boniface, (Red River.)
2 19 20	h m s 1 42 40	Pacific 49th Parallel.
2 42 40	2 6 0	h m s 0 23 20 VANCOUVER'S I. (N.W. Ext'y.)

TABLE

LONDON, (GREENWI

0 0 0
0 0 0

LONDON, (Greenwich Observatory.)

h m s	St. John's (Newfoundland.)	Halifax, N. S.	St. Johns, N. B.	Portland, Me.	Boston, Mass.	Quebec.	Montreal.	New York.	Kingston.	Washin
3 30 50	h m s									
4 14 20	0 43 30	h m s								
4 24 15	0 53 25	0 9 55	h m s							
4 41 0	1 10 10	0 26 40	0 16 45	h m s						
4 44 30	1 13 40	0 30 10	0 20 15	0 3 30	h m s					
4 44 50	1 14 0	0 30 30	0 20 55	0 3 50	0 0 20	h m s				
4 54 17	1 23 27	0 39 57	0 30 2	0 13 17	0 9 47	0 9 27	h m s			
4 56 0	1 25 10	0 41 40	0 31 45	0 15 0	0 11 30	0 11 10	0 1 43	h m s		
5 6 5	1 35 15	0 51 45	0 41 50	0 25 5	0 21 35	0 21 15	0 11 48	0 10 5	h m s	
5 8 15	1 37 25	0 53 55	0 44 0	0 27 15	0 23 45	0 23 25	0 13 58	0 12 15	0 2 10	h m s
5 15 0	1 44 10	1 0 40	0 50 45	0 34 0	0 30 30	0 30 10	0 20 43	0 19 0	0 8 55	0 6 45
5 17 30	1 46 40	1 3 10	0 53 15	0 36 30	0 33 0	0 32 40	0 23 13	0 21 30	0 11 25	0 9 15
5 32 30	2 1 40	1 18 10	1 8 15	0 51 30	0 48 0	0 47 40	0 38 13	0 36 30	0 26 25	0 24 15
5 51 20	2 20 30	1 37 0	1 27 5	1 10 20	1 6 50	1 6 30	0 57 3	0 55 20	0 45 15	0 43 5
6 28 0	3 7 10	2 13 40	2 3 45	1 47 0	1 43 30	1 43 10	1 33 43	1 32 0	1 21 55	1 19 45
8 10 40	4 39 50	3 56 20	3 46 25	3 29 40	3 26 10	3 25 50	3 16 23	3 14 40	3 4 35	3 2 25
8 34 0	5 3 10	4 19 40	4 9 45	3 53 0	3 49 30	3 49 10	3 39 53	3 38 10	3 27 55	5 25 45

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TABLE VI.

NDON, (GREENWICH OBSERVATORY.)

0 0 0

0 0 0

York.

s												
5	Kingston.											
	h	m	s									
15	0	2	10	WASHINGTON, Va.								
				h	m	s						
0	0	8	55	0	6	45	Buffalo, N. Y.					
							h	m	s			
30	0	11	25	0	9	15	0	2	30	TORONTO.		
										h	m	s
30	0	26	25	0	24	15	0	17	30	0	15	0
												Detroit, Mich.
										h	m	s
20	0	45	15	0	43	5	0	36	20	0	33	50
												0 18 50 Chicago.
												h m s
0	1	21	55	1	19	45	1	13	0	1	10	30
												0 55 30 0 36 40 St. Boniface, (Red River.)
												h m s
40	3	4	35	3	2	25	2	55	40	2	53	10
												2 38 10 2 19 20 1 42 40 Pacific 49th Parallel.
												h m s
10	3	27	55	5	25	45	3	19	0	3	16	30
												3 1 30 2 42 40 2 6 0 0 23 20 VANCOUVER'S I. (N.W. Ext'y.)

n's City Steam Press, 63 Yonge Street, Toronto.