

CIHM/ICMH Microfiche Series.

1

51

Ö

CIHM/ICMH Collection de microfiches.



Canadian Institute for Historical Microreproductions / Institut canadian de microreproductions historiques

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 mellleur 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.

The to

The pot of film

Ori bet the alo oth fire

sio 10

Th she TIP wh

Ma dif ent ber req

	Coloured covers/ Couverture de couleur	Coloured pages/ Pages de couleur
	Covers damaged/ Couverture endommagée	Pages damaged/ Pages endommagées
	Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée	Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
	Cover title missing/ Le titre de couverture manque	Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
	Coloured maps/ Cartes géographiques en couleur	Pages detached/ Pages détachées
	Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)	Showthrough/ Transparence
	Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur	Quality of print varies/ Qualité inégale de l'impression
	Bound with other material/ Relié avec d'autres documents	Comprend du matériel supplémentaire
7	Tight binding may cause shadows or distortion along interior margin/ Lareliure serrée peut causer de l'ombre ou de la distortion le long de la marge intérieure	Only edition available/ Seule édition disponible Pages wholly or partially obscured by errate
	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.	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.
	Additional comments:/ Commentaires supplémentaires:	
`		
This	item is filmed at the reduction ratio checked below/	

10X 28X 30X 14X **18X** 22X 12X 16X 20X 24X X 25

Ce document est filmé au taux de réduction indiqué ci-dessous.

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

tails du odifier

une

mage

rrata

pelure.

to

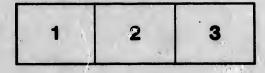
Bibliothèque nationale du Québec

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 impresaion, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated imprescion, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \longrightarrow (meaning "CON-TINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, pistes, 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 généroaité de:

Bibliothèque nationale du Québec

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 da 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.

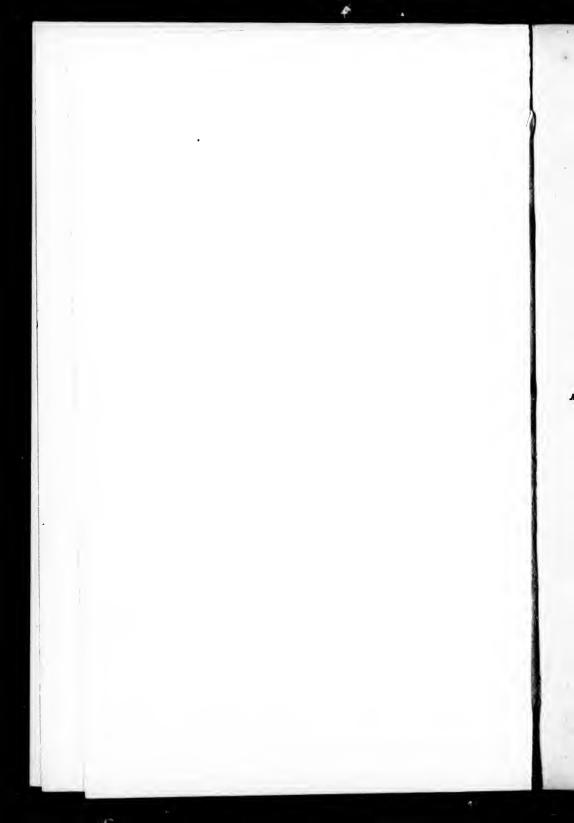
Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole → signifie "A SUIVRE", le symbole ▼ signifie "FIN".

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.



3

6



THE

CANADIAN SCHOOL

GEOGRAPHY,

EY

THOMAS EWING;

AUTHOR OF PRINCIPLES OF ELOCUTION, RHETORICAL EXERCISES, THE ENGLISH LEARNER, A SYSTEM OF GEOGRAPHY AND ASTRONOMY, AND A NEW GENERAL

ATLAS.

MONTREAL,

11

ARMOUR & RAMSAY; KINGSTON, RAMSAY, ARMOUR & CO.; MAMILTON, A. H. ARMOUR & CO.

1843

40545

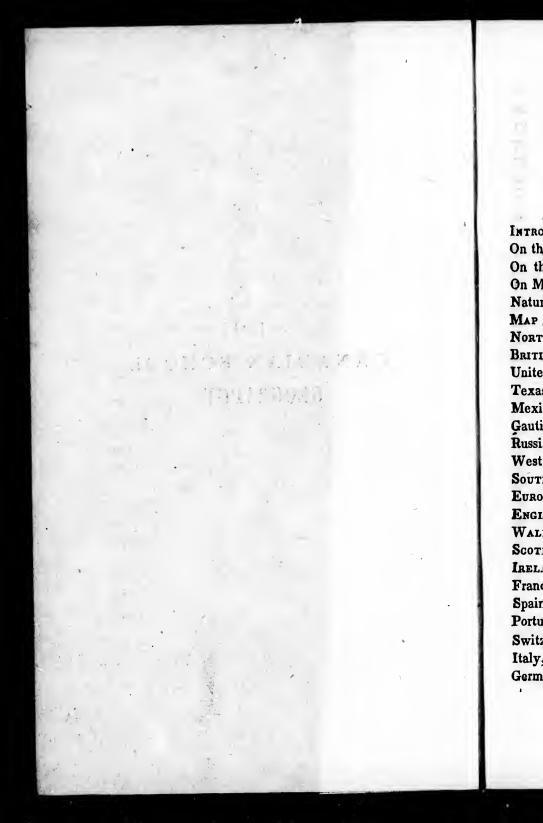
ę

PRINTED BY ARMOUR & RAMSAY, MONTREAL.

4 • • • • •

the state that is a second sec

EWING'S CANADIAN SCHOOL GEOGRAPHY



CONTENTS.

.,

A.L.

40 43

8

.

· · · ·		1	PAGE.
INTRODUCTION,	•		13
On the Sun, Earth, and Moon,		•	13
On the Solar system,	•		14
On Maps,		•	15
Natural Divisions of the Earth's surface, .	•		15
MAP OF THE WORLD,		•	16
NORTH AMERICA,			17
BRITISH POSSESSIONS IN NORTH AMERICA, .		•	18
United States,			22
Texas,			25
Mexico,	•		25
Gautimala,			25
Russian Territory,			26
West Indian Islands,			26
South America,			27
EUROPE,			27
England,			29
Wales,			30
SCOTLAND,			31
IRELAND,			33
France,			34
Spain,			34
Portugal,			35
Switzerland,			35
Italy,		•	36
Germany,	·		36
		-	

CONTENTS.

Talland		. 36
Holland,	• •	36
Belgium,	•	
Denmark,	• •	. 37
Norway,		37
Sweden,	• •	. 37
Russia,	•	38
Austria,		. 38
Prussia,	•	39
Turkey in Europe,	• •	. 39
Greece,		39
As14, · · · · · · · ·		. 40
Turkey in Asia,		41
Hindostan,		. 42
Eastern Peninsula,		42
China,		. 43
Russia Tartary,		43
Western Tartary,		. 43
Australasia,		43
Polynesia,		. 44
AFRICA,		44
Extent of Countries, Heights of M	Jountaine	
ON THE TERRESTRIAL GLOBE,	Touncarins	. 50
Problems to be solved,	•	. 50
ON THE CELESTIAL GLOBE,	• •	59
-	• • •	
Problems to be solved,	• •	. 00
	• •	
· · · · ·	· ·	
	a 6.	*
• • •	°• °	
	• •	
a de la tradición de la companya de	,	
	s e	a
•	p .	

In the fo struck antiqu Schoo this m portio Unite contai dismi Color own 1 endes use 0 the s whice has b Schoo phy wish

Fe

PREFACE.

In the course of different visits which the Author of the following little work has paid to Canada, he has been struck with the great diversity, and for the most part, the antiquated and inferior character of the Books used in the Schools throughout the Province. In no branch of study was this more observable than in that of Geography :---the greater portion of the Text Books appear to be imported from the United States; and, as might be expected, while they contain much information respecting these Republics, they dismiss summarily what it is most necessary the British Colonial youth should be rendered most familiar with-their own Parent country and its dependencies. The author has endeavoured to supply the deficiency, by producing for the use of Elementary Schools the present work, which is upon the same principle as his "System of Geography," a book which has gone through about twenty editions in Britain, and has been extensively employed in all the principal Boarding Schools and Academies. That the Canadian School Geography may merit a like favourable reception, is the anxious wish and expectation of

THE AUTHOR.

Montreal, February, 1843.

Y Pr. L el "il (الدانية ا · · · Č. GEO . . 1. resem 2. miles the second se Moor 3. magn times 4. · about 240,0 5. round minu

EWING'S

.

Car 5h

GEOGRAPHY.

GEOGRAPHY IS A DESCRIPTION OF THE EARTH AND ITS INHABITANTS.

INTRODUCTION.

I. On the Sun, Earth, and Moon.

1. The Sun, Earth, and Moon, are bodies resembling a sphere or globe.

2. The Diameter of the Sun is nearly 890,000 miles; that of the Earth 8,000; and that of the Moon 2,180.

3. The Sun is more than 1,300,000 times the magnitude of the Earth ; and the Earth nearly 50 times the magnitude of the Moon.

4. The distance of the Earth from the Sun is about 95,000,000 miles; and, from the Moon 240,000.

5. The Sun has one motion, which it performs round its axis in about 25 days, 14 hours, 8 minutes.

6. The Earth has two motions; one round its axis, in 24 hours, called its diurnal motion, which causes the apparent motion of the heavenly bodies from East to West, and the alternation of day and night; another, round the Sun, in 365 days 6 hours, called its annual motion, which causes the difference in the length of the days and nights, and the various seasons.

14

7. The Moon has three motions; one, round the Earth, in about four weeks, which causes the Moon's apparent increase and decrease, and produces the eclipses of the Sun and Moon; another, round its own axis, in the same time; and a third, round the Sun, along with the Earth, in a year.

II. On the Solar System.

1. Besides the Earth and its attendant the Moon, other bodies revolve, in a similar manner, about the Sun, and receive their light and heat from him. All these revolving bodies, together with the Sun, form what is called the *Planetary* or *Solar System*.

2. The Solar System consists of the Sun, the Primary Planets, the Secondary Planets, (called also Moons or Satellites,) and Comets.

3. There are 11 Primary Planets, Mercury, Venus, the Earth, Mars, (Vesta, Juno, Ceres, Pallas,) Jupiter, Saturn, and the Georgium Sidus, called also Uranus or Herschel.

4. There are 18 Secondary Planets; of which the Earth has one; Jupiter, four; Saturn, with his Ring, seven; and the Georgium Sidus, six. par 2 *tom* the

sou

cas

fig

up

do

fig

fig

is

it i

an

, round uses the and proanother, a third, year.

e Moon, r, about at from er with tary or

un, the (called

ercury, Ceres, Sidus,

which , with six. 5. Comets are luminous bodies, or a kind of planets, which move round the sun, in very eccentric orbits.

6. The solar system is but a small part of the universe. Those celestial bodies, called fixed stars, which are completely unconnected with the solar system, are, by astronomers, considered as so many suns, each communicating light and heat to revolving planets or worlds.

III. On Maps.

1. A MAP is a representation of the Earth, or a part of it, on a plane surface.

2. The top of a map is towards the north, the bottom towards the south, the right-hand side towards the east, and the left-hand side towards the west.

3. Latitude is the distance of a place north or south from the equator; longitude is its distance east or west from the first meridian.

4. The *latitude* upon maps is expressed by figures on their *sides*. If the figures increase *upwards*, the latitude is north; if they increase *downwards*, it is south.

5. The *longitude* is expressed upon maps by figures along the *top* and *bottom*. When the figures increase towards the *right*, the longitude is east; but, when they increase towards the *left*, it is west.

IV. Natural Divisions of the Earth's Surface.

1. The surface of the Earth consists of land and water.

2. A continent is a large tract of land. An island is land surrounded by water. A promontory or cape is a portion of land running into the sea. A peninsula is land almost surrounded by water. An Isthmus is a narrow neck of land joining two portions of land together.

3. An Ocean is a large portion of salt water. A Sea is a smaller portion. A Lake is water surrounded by land. A Bay is a portion of sea running into the land. A Gulf is water almost surrounded by land. A Strait is a narrow passage of water between two seas.

MAP OF THE WORLD. (a)

CONTINENTS.-North America, South America.

(a) The circumference of the Earth is 21,600 Geographical miles, of 60 to a degree; or 25,020 British miles, reckoning 69½ to a degree. The surface of the Earth contains about 196 millions of English square miles, and nearly three-fourths of it are covered with water. The number of inhabitants on the face of the Globe is generally computed at about 800,000,000; of whom

Europe is	supposed t	o contair	1	··230	millions.
Africa	do	do		70	do
America	do				do
Asia, with	Australa	sia and F	olynesia	460	do

Of the surface of the Globe, Seas and Lakes occupy about 145 millions of English square miles, or nearly three-fourths; and the dry land occupies 51 millions, or rather more than one-fourth. The extent of the great divisions of the world is respectively as follows :--

10-10 11 5 1			
Europe, with its Isles,	3,700.000	square	miles.
A frica, with Madagascar,	11,400,000	- do	
Continental Asia,	16,100,000	do	
Asiatic Islands, including Australasia	4,200,000	do	
North America,	8,100,000	do	
South America	6,420,000	do	
American Islands	160 000	do	
Greenland, as far as known,	620,000	do	•
-100 C	50,700,000	·do	*

Euro Oc India

Boy a Pacifi Dr Texa W. Ir Isi Fox

(b) I Contin Africa hendin Americ Globe. Fifth

> (c) Atlas on his derive

> > (d) dange days, any la he suf he had rupted stowe The to So

d. An romonnto the ided by of land

water. ter surof sea almost w pas-

nerica,

graphical ng 69¹/₂ to millions covered te Globe

8.

out 145 and the fourth. ively as

e miles. o o

Europe, Asia, Africa, (b) OCEANS.—Atlantic, (c,) Pacific or South Sea, (d), Indian Northern or Arctic, Southern or Antarctic.

NORTH AMERICA.

BOUNDARIES.—N. Northern Ocean; E. Baffin's Bay and the Atlantic; S. Isthmus of Darien; W. Pacific.

DIVISIONS.—British Possessions, United States, Texas, Mexico, Gautimala, Russian Territory, W. Indian Islands.

ISLANDS.—Newfoundland, Bermudas, Bahamas, Fox Islands, King George III's Island, Prince of

(b) There are in fact only Two Grand Continents, the Eastern Continent or the Old World, comprehending Europe, Asia, and Africa; and the Western Continent or the New World, comprehending North and South America. Europe, Asia, Africa, and America, are called by Geographers the Four Quarters of the Globe. The Great Islands of Australasia are now reckoned a Fifth Division.

(c) The Atlantic Ocean takes its name from the Mountains of Atlas in Africa; and from the fiction of Atlas carrying the World on his back, the name Atlas, applied to a collection of Maps, is derived.

(d) When Magellan entered this Ocean, in 1520, through the dangerous strait that bears his name, he sailed 3 months and 20 days, in a uniform direction towards the N.W. without discovering any land besides a few small islets. In the extreme distress which he suffered in this voyage, before he reached the Ladrone Islands, he had the consolation, however, of enjoying such an uninterrupted course of fair weather, with favourable winds, that he bestowed on this Ocean the name of *Pacific*, which it still retains. The Spaniards, having passed the Isthmus of Darien, from North to South, at the discovery of this Ocean, named it the South Sea. Wales' Island, Queen Charlotte's Island, Quadra or Vancouver's Island.

MOUNTAINS.—Appalachian or Alleghany, Andes, or Cordilleras, Rocky Mountains:

LAKES.—Superior, Michigan, Huron, Erie, Ontario; Champlain; Nicaragua, Slave Lake, Athabasca, Winnipeg, Great Bear Lake.

BAYS, GULFS AND STRAITS.—Baffin's Bay, Davis' Straits, Hudson's Bay, James' Bay, Straits of Belleisle, Gulf of St. Lawrence, Fundy Bay; Gulfs of Florida and Mexico; Bays of Campeachy and Honduras; Gulf of California; Nootka or King George's Sound, Behring's Straits.

CAPES.—Farewell, Chidley, Charles, Florida, St. Lucas, Alaska, Prince of Wales.

RIVERS.—Mississippi, Missouri, Ohio, St. Lawrence, Columbia, Mackenzie's, Copermine.

BRITISH POSSESSIONS IN NORTH AMERICA.

BOUNDARIES.—N. Northern Ocean; E. Baffin's Bay and the Atlantic; S. United States; W. Russian Territory and Pacific.

DIVISIONS.—1. Canada, (East or Lower, (a) and West or Upper, (b); 2. New Brunswick, (c); 3. Nova Scotia, (d); 4. New Britain, (including Hudson's Bay or New N. and S. Wales, E. Main, and Labrador); 5. Newfoundland; 6. Cape Breton; 7. Prince Edward Island; 8. Bermudas; 9. Anticosti, Pictou, St. Pierre or St. Peter's, Miquelon, &c, in the Gulf of St. Lawrence.

red

In wa

de

the

Quadra

y, Andes,

h, Erie, e Lake,

i's Bay, y, Straits dy Bay ; npeachy ootka or

Florida,

St. Law-

IERICA.

Baffin's tes; W.

wer, (a) ick, (c); icluding 2. Main, Breton; 9. Antiliquelon,

Towns.-1. Quebec (e), Montreal, Three Rivers, Berthier, William Henry or Sorel, Sherbrooke, New Carlisle, Douglastown, St. John's or Dorchester, St. Hyacinthe, St. Andrew's, L'Assomption; KINGSTON, Toronto, Niagara, Queenston, Brockville, Prescott, Perth, Cornwall, Bytown, Belleville, Picton, Cobourg, Port Hope, Peterborough, Dundas, Ancaster, Simcoe, Hamilton, Malden, Amherstburg, Sandwich, Chatham, London, Goderich, Guelph, Woodstock, Barrie, St. Catherine's; 2. Fredericton, St. John's, St. Andrews, Dalhousie, Bathurst, Woodstock, Miramichi, Richibucto; 3. Halifax Shelburne, Annapolis, Liverpool or Port Rossignol; 4. There are no Towns in these Territories; but several Forts and 'Trading Ports belonging to the Hudson's Bay Company ; 5. St. John, Placentia, Bonavista; 6. Sydney; 7. Charlottetown; 8. St. George.

ISLANDS.—Anticosti, Orleans, Montreal, Jesus; Grand Manitoulin, Isle Royale.

MOUNTAINS.—S. Chain, along the source of the Rivers which fall into the S. or right bank of the St. Lawrence in Lower Canada; the N. Chain, along the source of the Rivers which fall into N. or left bank of the St. Lawrence, extending from below Quebec to the River Ottawa in Lower Canada.

LAKES.—Temiscaming, Two Mountains, Abbitibi, St. John, Memphremagog, Megantic, Temiscouta, St. Francis, St. Louis, St. Peter; Ontario,

(e) Quebec was built by the French in 1605. The British reduced it and all Canada in 1626; but it was restored in 1632. In 1711, it was besieged by the English without success; but was taken by them in 1759, after a battle memorable for the death of General Wolfe, on the plains of Abraham, at Quebec, in the moment of victory; and was confirmed to them by the peace of 1763. Erie, Huron, Superior, Nipissing, Simcoe, St. Clair. (f)

(b) T

District

hurst, 5

toria, 9

13. Gor

18. Wes Gaol ar

to that

District

each ond

of Toro Hamilto

Upper

gislatur

gary, 2 Carlton

11. Ler

14. Not

16. Sin

West R

Ridings sex, 25

(c) I

St. Joh lotte, 6

Glouce

Halifa

Lunen

Breton NATU

are the

the cel where and 15 that or height

+Tł

‡ No subdiv

subdiv

(d)

In th

BAYS.—Fundy, Chaleurs, Miramichi, Gut of Canso, Straits of Belleisle.

CAPES.—Sable, Ray, Race, Charles, Chidley.

RIVERS.—St. Lawrence, Ottawa, St. Maurice, Cartier, Montmorency, Saguenay, Chambly or Sorel or Richlieu, St. Francis, Chaudiere; Trent, Grand, Thames; Madawaska, and the Rideau which enter the Ottawa.

(a) The Province of Lower Canada, comprehending the three principal Districts of Quebec, Montreal and Three Rivers, and the two Inferior Districts, Gaspe and St. Francis, is subdivided into 36 Counties * of—1. Vaudreuil, 2. Ottawa, 3. Lake of Two Mountains, 4. Montreal, 5. Terrebonne, 6. Leinster, 7 Berthier, 8. St. Maurice, 9. Champlain, 10. Port Neuf, 11. Quebec, 12. Montmorency, 13. Saguenay, 14. Gaspé, 15. Bonaventure, 16. Rimouski, 17. Kamouraska, 18. L'Islet, 19. Bellechasse, 20. Dorchester, 21. Megantic, 22. Lotbiniere, 23. Nicolet, 24. Yamaska, 25. Drummond, 26. Sherbrooke, 27. Stanstead, 28. Missiskoui, 29. Shefford, 30. St. Hyacinthe, 31. Rouville, 32. Richlieu, 33. Vercheres, 34. Chambly, 35. Huntingdon, 36. Beauharnois. Each County returns one Member, who added to two each from the eities of Quebec and Montreal, and one each jrom the Towns of Three Rivers and Sherbrooke, make the share of Lower or Eastern Canada in the representation of the Provincial Legislature to amount to 42

(f) The length, breadth, depth, and circumference of the four great Lakes are—

Lakes.	Length.		Breadth.		Common Depth.			Circum.	
Superior	120	eagues	481	eagues	80 to	150	fathoms	500 le	agues
Huron	84	do	80	do	60 to	100	do	380	do
Erie			21	do	13 to			180	do
Ontario ····	70	do	20	do	60 to	90	do	160	do
* = *				1	a ·			m	

* The Counties are divided into Seigniories and Townships. The Parishes sometimes contain but one Seigniory; sometimes, on the contrary, a Parish is formed of several Seigniories or Townsships, either entire or divided. oe, St.

Gut of

lley. aurice. bly or Trent, Rideau

ding the d Three Francis, Ottawa, onne, 6. 10. Port ray, 14 ıska, 18. tic, 22. ond, 26. ord, 30. ercheres, Each from the e Towns ower or cial Le-

the four

lircum.

leagues 0 do do) do

vnships. netimes, Towns-

(b) The Province of Upper Canada is divided into the 19 Districts † of 1. Eastern, 2. Ottawa, 3. Dalhousie, 4. Bathurst, 5. Johnstown, 6. Midland, 7. Prince Edward, 8. Victoria, 9. Newcastle, 10. Colborne, I1. Home, 12. Niagara, 13. Gore, 14. Talbot, 15. Brock, 16. Wellington, 17. London, 18. Western, 19. Huron. As soon as a Court House and Gaol are completed in the Town of Barrie, and a Proclamation to that effect issued, a new District to be called the Simcoe District will be established. The Counties and Ridings return each onc member to Parliament, which with two from the City of Toronto and one each from Kingston, Brockville, Cornwall, Hamilton, Niagara, Bytown, and London make the share of Upper or Western Canada in the representation of the Legislature to be 42.

In the above 19 Districts, the 27 Counties are,-1. Glengary, 2. Prescott, 3. Stormont, 4. Dundas, 5. Russell, 6. Carlton, 7. Lanark, 8 Grenville, 9. Leeds, 10. Frontenac, 11. Lenox and Addington, 12. Hastings, 13. Prince Edward, 14. Northumberland, North and South Ridings, 15. Durham, 16. Simcoe, 17. York, four Ridings, 18. Halton, East and West Riding's, 19. Wentworth, 20. Lincoln, North and South Ridings 21. Haldimand, 22. Oxford, 23. Norfolk, 24. Middlesex, 25. Kent, 26. Essex, 27. Huron.

(c) New Brunswick is divided into the 10 Counties of-1. St. John's, 2. Westmoreland, 3. King's, 4. Queen's, 5. Charlotte, 6. York, 7. Sunbury, 8. Northumberland, 9. Kent. 10. Gloucester.

(d) Nova Scotia ‡ is divided into the 10 Counties of-1. Halifax, 2. Sydney, 3. Cumberland, 4. Hants, 5. Kings, 6. Lunenburg, 7. Queen's, 8. Annapolis, 9. Shelburne, 10. Cape Breton.

NATURAL CURIOSITIES .- The chief Natural curiosities in Canada are the Great Lakes, Rivers and Cataracts. Among the latter are the celebrated Falls of Niagara, between Lakes Erie and Ontario, where the fall of the River, on the Canadian side, is 2,100 feet wide, and 150 feet high. A small Island lies between the Falls; and that on the side of the United States is 1,140 feet broad, while the height is 164 feet. From the Great Fall a cloud of spray ascends,

+ The 19 Districts are divided into 27 Counties, and the Counties subdivided into Townships. There are no Scigniorics. ‡ Nova Scotia comprehends 5 circuits. The 10 Counties are

subdivided into Districts and Townships.

which may sometimes be seen at an incredible distance. The noise is often heard at the distance of 15 miles. The whole scene is truly tremendous.

UNITED STATES.

BOUNDARIES.-----N. British Possessions; E. Atlantic; S. Gulf of Mexico, Texas, and the Mexican States; W. Pacific.

DIVISIONS.—Northern States or New England, 1. Maine; 2. New Hampshire; 3. Vermont; 4. Massachusetts; 5. Connecticut; 6. Rhode Island.

Middle States,—7. New York; 8. Pennsylvania, (District of Columbia); 9. New Jersey; 10. Delaware.

Southern States,—11. Maryland; 12. Virginia; 13. North Carolina; 14. South Carolina, (a); 15. Georgia; 16. Alabama.

Western States.--17. Ohio; 18. Indiana; 19, Illinois; 20. Kentucky; 21. Missouri; 22. Tennessee; 23. Mississippi; 24. Louisiana; 25. Arkansas; 26. Michigan.

Territories.—27. Florida; 28. Wisconsin; 29. Iowa; 30. Oregon.

CAPITAL TOWNS.—Northern States.—1. Augusta; 2. Concord; 3. Montpelier; 4. Boston; 5. Hartford and Newhaven; 6. Providence.

Middle States.—7. Albany; 8. Harrisburg, (WASHINGTON); 9. Trenton; 10. Dover.

(a) S. Carolina is divided into Districts, and Louisiana into Parishes; the other States into Counties. The subdivisions bear the name of Townships in the Northern States, New York, New Jersey, Pennsylvania, and Ohio; and that of Villages or Townships in the other States. Sou mond geville We polis; City;

Orlean Ten

City; IsL yard, 1 in the Mot White

BA^{*} scot, York, marle chia a

Rr

ticut, Savan Sabin Little Waba Jame Sante Api wick,

3. Ben Plym

(b) circum vessela (c) Plymo Englai the lai ance. The whole scene

ons; E. and the

England, nont; 4. le Island. Pennsyl-Jersey;

Virginia ; (a); 15.

ana ; 19, 22. Ten-; 25. Ar-

sin; 29.

-1. Au-

rrisburg,

siana into isions bear lork, New or TownSouthern States.—11. Annapolis; 12. Richmond; 13. Raleigh; 14. Columbia; 15. Milledgeville; 16. Tuscaloosa.

Western States.—17. Columbus; 18. Indianapolis; 19. Vandalia; 20. Frankfort; 21. Jefferson City; 22. Nashville; 23. Jackson; 24. New Orleans; 25. Little Rock; 26. Detroit.

Territories.—27. Tallahasse ; 28. Madison City ; 29. Burlington ; 30. Astoria.

ISLANDS.—Long Island, Staten, Martha's Vineyard, Nantucket; Gouverneurs, Bedloe, and Ellis, in the Bay of New York.

MOUNTAINS.—Appalachian or Alleghany, Green, White, Blue, Cumberland, Ozark, Rocky.

BAYS.—The Bays of Passamaquoddy, Penobscot, Casco, Massachusetts, the Sound, New York, Delaware, Chesapeake; Currituck, Albemarle, and Pamlico Sounds; the Bay of Appalachia and Mobile; Lake Michigan, (b.)

RIVERS — Mississippi, Ohio, St. Croix, Connecticut, Hudson, Delaware, Susquehanna, Potomac, Savannah; Illinois, Missouri, Arkansas, Red River, Sabine; Little Kenaway, Great Kenaway, Scioto, Little Miami, Great Miami, Kentucky, Green, Wabash, Cumberland, Tennesse; Fluvien or St. James, Roanoke, Pamlico, Cape Fear, Pedee and Santee; Sabine, beween Louisiana and Texas.

ADDITIONAL TOWNS.—1. Portland, Bath, Hallowell, Brunswick, Waterville; 2. Portsmouth, Dover, Hanover, Exeter; 3. Bennington, Burlington, Middlebury, Windsor; 4. Salem, Plymouth (c), Worcester, Springfield, Northampton; 5. New

(b) Lake Michigan is 117 leagues long, 27 broad, and 333 in circumference; and is sufficiently deep to receive the largest vessels.

(c) The first English settlement in New England was made at Plymouth, 22nd December, 1620, by 101 Puritans, who field from England, on account of religious persecution. The anniversary of the landing of the Puritans is still observed. London, Norwich, Middletown, Litchfield, Withersfield; 6. Newport, Bristol, Pawtucket; 7. New York, Brooklyn, Troy, Hudson, Newburg, Schenectady, Utica, Syracuse, Geneva, Auburn, Canandaigua, Rochester, Buffalo, Lockport; 8. Philadelphia, Pittsburg, Lancaster; (Alexandria, Georgetown), 9. New Hrunswick, Newark, Princeton, Burlington, Elizabethtown, Patterson; 10. Wilmington; 11. Frederick, Hagerstown; 12. Norfolk, Yorktown, Mount Vernon; 13. Newbern, Wilmington; 14. Charleston; 15. Savannah, Augusta; 16. Mobile, Blakely; 17. Cincinnati; 18. Vincennes, New Albany; 19. Chicago, Alton; 20. Lexington, Louisville, Maysville; 21. St. Louis; 22. Knoxville; 23. Natchez; 24. Baton Rouge; 25. Arkansas; 26. Michilimackinack (d); 27. St. Augustine, Pensacola.

Gul

Te

and

Oce

chi the

S.

Tr

Nat

brid

over curi Aha

Za

NATURAL CURIOSITIES .- In New Hampshire is the Notch or Defile of the White Mountains; and a Rock, so poised on another, as to be moveable by the touch of the finger. In Vermont is a curious Stalactic Cave, in which, after a descent of 104 feet, there opens a Spacious Room about 20 feet in breadth, and 100 in length, with a Circular Hall at the farther end, at the bottom of which boils up a deep spring of clear water. In New York are the Falls of Niagara; the Fall of the Mohawk River, near Albany; the mineral waters of Saratoga and Ballston. In New York State, a Rivulet runs under a hill about 70 yards in diameter, forming a beautiful arch in the rock; there is also a Stalactic Cave, in which was found the petrified skeleton of a large snake. In Virginia, the Natural Bridge over the River Cedar, in the County of Rockbridge ; this bridge is 90 feet long, and 60 broad. having a solid thickness of from 40 to 60 feet, it is raised 200 feet above the River over which it passes, its form is a regular arch, elegantly supported upon two pillars or butments, at the extremities; there is another bridge of this description in the County of Scott. In Virginia are also some Caverns, 300, 400, and even 900 feet in depth, resplendent with spars. In the Territory, on the N. W. of the Ohio, the Savannahs or Rich Plains, extend 30 or 40 miles without any tree. In North Carolina is Mount Ararat, or the Pilot Mountain, in the County of Stoke; it is a vast mutilated pyramid, several thousand feet in height; above it is seen another which resembles a block, 300 feet high, the base of which is only 200 feet in diameter. In Kentucky, Tennesse, and Georgia, are subterraneous passages, several miles long, in which the aboriginal natives, as it would appear, deposited their dead, and from which is now taken a large quantity of Nitre, or Salt Petre.

(d) Pronounced Mack'-e-naw.

24

TEXAS.

BOUNDARIES.---N. and E. United States; S. Gulf of Mexico; W. Mexico.

CHIEF TOWNS.—AUSTIN, HOUSTON, Galveston. The Sabine River forms the boundary between Texas and Lousiana.

MEXICO.

BOUNDARIES.—N. United States; E. Texas, and Gulf of Mexico; S. Guatimala; W. Pacific Ocean.

CHIEF TOWNS.—MEXICO, Guanaxuata, Puebla, Zacatecas, Vera Cruz, Acapulca. Belize is the chief town of the British settlement of Belize in the Bay of Honduras.

GUATIMALA.

BOUNDARIES.—N. Mexico; E. Caribbean Sea; S. Isthmus of Darien; W. Pacific Ocean.

CHIEF TOWNS.-St. SALVADOR, Cartago, Leon, Truxillo, Omoa.

The principal Lake is Nicaragua.

* NATURAL CURIOSITIES. -Besides Volcances there are many Natural Curiosities in Mexico, one of the most remarkable being the Ponte de Dios, or Bridge of God, resembling the natural bridge in the United States; it is about 100 miles S. E. of Mexico, over a deep river, and is passed as a highway. The other chief curiosities are, a Mountain or Hill of Loadstones, and the famous Akahusta, or Cypress, which is 73 feet in circumference.

sfield; 6. yn, Troy, Geneva, port; 8. Georgeurlington, Frederick, non; 13. Savannah, 18. Vinexington, ille; 23. . Michili-

tch or Den another. mont is a feet, there hd 100 in bottom of rk are the Albany; lew York eter, form-Cave, in In Vir-County of having a bove the elegantly es: there Scott. In 0 feet in e N. W. : 40 miles at, or the mutilated 1 another h is only Georgia, hich the lead, and , or Salt

RUSSIAN TERRITORY.

BOUNDARIES.....N. Northern Ocean; E. British Possessions; S. Pacific Ocean; W. Behring's Straits.

be

Bo

6.

Ba

Pa

·P

1

be

P

P

R

.*

N

G

0

C

CHIEF TOWN.----NEW ARCHANGEL, in the Island and on the Straits of Sitka, on the N. W. coast. The principal Islands are the Aleutian and Fox Islands.

WEST INDIAN ISLANDS! AND A DECEMBER OF A DEC

THE LESSER ANTILLES.—. Trinidad, Santa Margueritta, Curaçoa.

THE LEEWARD ISLANDS. Anguilla, St. Martins, Saba, St. Eustatius, St. Bartholomew, St. Christopher's or St. Kitt's, Barbuda, Antigua, Mont Serrat, Nevis, Guadaloupe, La Desirade, Marie Galante, Dorainica.

THE WINDWARD ISLANDS.----Martinico, St. Lucia, St. Vincent, Grenada, Barbadoes, Tobago.

THE VIRGIN ISLANDS—E. of Torto Rico, are St. Thomas, St. John, Santa Cruz, Tortola, Virgini Gorda, Anegada.

* The Leeward, Windward, and Virgin Islands, are called the Caribbean Islands.

SOUTH AMERICA.

British nring's

n the N. W. eutian

a; 2, o Rico. can or on, St. 4. St.

Santa

t. Marew, St. a, Mont Marie

co, St. Pobago. ico, aro la, Vir-

called the

BOUNDARIES.—N. Isthmus of Darien and Caribbean Sea; E. Atlantic; S. Southern; W. Pacific.

DIVISIONS.—1. Columbia†; 2. Lower Peru; 3. Bolivia or Upper Peru; 4. Chili; 5. Patagonia; 6. Buenos Ayres or La Plata; 7. Paraguay or Banda Oriental; 8. Brazil; 9. Guiand‡; 10. Paraguay.

Towns.—1. Bogota, Carthagena; Caraccas, La Guayra; Quito, Guayaquil; 2. Lima, Callao, Cuzco, Truxillo; 3. Chuquisaca or La Plata, La Paz, Potosi; 4. Santiago, Valparaiso, Valdivia; 5. Port St. Julian; 6. Buenos Ayres, Mendoza, Tucuman, Cordova; 7. Monte Video; 8. St. Sebastian or Rio Janeiro, Bahia or St. Salvador. Pernambuco, Maranham, Para; 9. Georgetown; Paramaribo; Cayenne; 10. Assumption, Villa Rica.

ISLANDS.—Gallipago, Juan Fernandez, Chiloc, Madre de Dios, Terra del Fuego, Falkland, Georgia, Sandwich, S. Orkney, S. Shetland.

MOUNTAINS. — Mount Chimborazo, in the chain of the Andes or Cordilleras.

CAPES .- Roque, Mary, Antonio, Horn.

RIVERS.—Amazon or Maranon, La Plata, Orinoco.

EUROPE.

BOUNDARIES.—N. Northern Ocean; E. Asia, Black Sea, Sea of Marmora, Archipelago; S. Mediterranean; W. Atlantic.

t Columbia contains New Grenada, Venezuela, Ecuador. Guiana is owned by the English, Dutch, and French. COUNTRIES.—1. England (a); 2. Scotland (b); 3. Ireland (c); 4. France (d); 5. Spain (e); 6. Portugal (f); 7. Switzerland (g); 8. Italy (h); 9. Germany (i); 10. Holland (k); 11. Belgium (l); 12. Denmark (m); 13. Norway (n); 14. Sweden (o); 15. Russia (p); 16. Austria (q); 17. Prussia (r); 18. Turkey (s); 19. Greece (t).

CAPITALS. - 1. London; 2. Edinburgh; 3. Dublin; 4. Paris; 5. Madrid; 6. Lisbon; 7. Berne; 8. Rome; 9. Frankfort, on the Mayne; 10. Amsterdam; 11. Brussels; 12. Copenhagen; 13. Christiana; 14. Stockholm; 15. St. Petersburg; 16. Vienna; 17. Berlin; 18. Constantinople; 19. Athens.

ISLANDS.--Great Britain, Ireland, Iceland, Spitzbergen, Nova Zembla, Zealand, Funen, Candia, Sicily, Malta, Corsica, Sardinia, Majorca, Minorca, Ivica.

MOUNTAINS.—Alps, Apennines, Pyrenees, Haêmus or Balkan, Carpathian, Kolen, Ural.

SEAS, GULFS, &C.—Mediterranean Sea; Gulfs of Lyons, Genoa, Venice; Archipelago, Levant; Black Sea; Seas of Marmora, Asoph; Bay of Biscay, English Channel, German Ocean or N. Sea or British Ocean, St. George's Channel, Irish Sea, N. Channel; Baltic Sea; Gulfs of Bothnia, Finland, Riga or Livonia; Skager Rack, Cattegat, White Sea.

STRAITS.—Gibraltar, Bonifacio, Messina, Dardanelles, Constantinople, Caffa, Dover; the Sound, Great Belt, and Little Belt, in Denmark.

RIVERS-Wolga, Danube, Rhine, Rhone, Elbe, Po, Loire, Ebro, Tagus. Chai P castl Bris ting Nor Oxf We mou Co 4. Li berla 12: 4 16. I 20. ting 27. 1 ford Sur set; T Dur IIull ton, Chel Whi cast port Mo ing Lei 20. Bir bore 24.

E

()cea

(a) ENGLAND.

nd (b); (e); 6. ly(h); um(l); Sweden Prus-

th ; 3. Berne ; Amster-Chrisg; 16. e; 19.

celand, n, Can-Iajorca,

s, Hae-

Gulfs evant; Bay of or N. , Irish othnia, attegat,

, Dar-Sound,

Elbe,

BOUNDARIES.--N. Scotland ; E. German Ocean ; S. English Channel ; W. St. George's Channel, Irish Sea.

PRINCIPAL TOWNS.—LONDON, Liverpool, Newcastle, Durham, Hull, York, Canterbury, Bath, Bristol, Manchester, Sheffield, Leeds, Derby, Nottingham, Shrewsbury, Worcester, Warwick, Northampton, Huntingdon, Cambridge, Gloucester, Oxford, Windsor, Dover, Brighton, Portsmouth, Weymouth, Sidmouth, Exeter, Salisbury, Plymouth, Truro, Falmouth, Penzance.

COUNTIES.—1. Northumberland; 2. Durham; 3. York; 4. Lincoln; 5. Norfolk; 6. Suffolk; 7. Essex; 8. Cumberland; 9. Westmoreland; 10. Lancashire; 11. Cheshire; 12. Shropshire; 13. Hereford; 14. Monmouth; 15. Derby; 16. Nottingham; 17. Stafford; 18. Leicester; 19. Rutland; 20. Worcester; 21. Warwick; 22. Northampton; 23. Huntingdon; 24. Cambridge; 25. Gloucester; 26. Oxford; 27. Buckingham; 28. Middlesex; 29. Hertford; 30. Bedford; 31. Somerset; 32. Wiltshire; 33. Berkshire; 34. Surrey; 35. Kent; 36. Sussex; 37. Hampshire; 38. Dorset; 39. Devon; 40. Cornwall.

Towns.-1. Newcastle, Berwick, Morpeth, Alnvick; 2. Darham, Sunderland, Stockton; 3. York, Leeds, Sheffield, Hull, Scarborough, Whitby; 4. Lincoln, Gainsborough, Boston, Stamford; 5. Norwich, Yarmouth; 6. Ipswich; 7. Chelmsford, Colchester, Harwich; 8. Carlisle, Penrith, Whitehaven, Workington; 9. Appleby, Kendal; 10. Laneaster, Liverpool, Manchester, Preston; 11. Chester, Stockport; 12. Shrewsbury, Bridgenorth; 13. Hereford; 14. Monmouth, Chepstow; 15. Derby, Chesterfield; 16. Nottingham, Newark; 17. Stafford, Litchfield, Rurton; 18. Leicester, Harborough, Bosworth; 19. Oakham, Uppingham; 20. Worcester; Evesham, Droitwich; 21. Warwick, Coventry, Birmingham, Startford-upon-Avon; 22. Northampton, Peterborough, Daventry; 23. Huntingdon, St. Neots, St. Ives; 24. Cambridge, Ely, Newmarket; 25. Gloucester, Tewkesbury, part of Bristol; 26. Oxford, Woodstock, Banbury; 27. Buckingham, Eton; 28. LONDON, Westminister, Brentford; 29. Hartford, Ware; 30. Bedford, Biggleswade; 31. Bath, Wells, part of Bristol; 32. Salisbury, Wilton; 33. Reading, Windsor; 34. Guildford, Kingston, Southwark; 35. Maidstone, Canterbury, Rochester, Chatham, Dover, Sandwich; 36. Chichester, Brighton, Seaford, Hastings; 37. Winchester, Southampton, Portsmouth; 38. Dorchester, Weymouth, 39. Exeter, Plymouth, Dartmouth, 40. Launceston, Truro, Falmouth, Penzance.

1SLANDS.—Isle of Man, in which are Castleton, Douglas, Ransay, Peel; Isle of Anglesea; Lundy Isle; Scilly Isles, principal St. Mary's; Isle of Wight, in which are Newport, Cowes; Sheppey, Thanet; Holy Island or Lindisferne; Coquet. On the Coast of France are Jersey, in which is St. Helier; Guernsey, in which is St. Pierre; Alderney; Sark. MOUNTAINS.—The Cheviot Hills, on the borders of Scotland; in 3, Bowfell, Whernside, Ingleborough, Pennygent; 8, Skiddaw, Crossfell; 12, Wrekin; 15, the Peak; 20, Mal-

vern; 24, Gogmagog; 25, Cotswold; 31. Mendip. LAKES.—8, Derwent-water or the Lake of Keswick; between 8 and 9, Ulles-water; between 9 and 10, Winander or Winder-mere; in 23, Wittlesea-mere.

CAPES.—Flamborough Head, Spurn Head, N. Foreland, S. Foreland, Dungeness, Beachy Head, the Needles, St. Alban's Head, Portland Point, Start Point, Eddystone Light house, Lizard Point, Land's End.

BAYS.—Robin Hood's Bay, Bridlington Bay, Humber Mouth, the Wash, Yarmouth Roads, the Downs, Goodwin Sands, Straits of Dover, Spithead, Torbay, Mounts Bay, Bristol Channel, Milford Haven, St. Bride's Bay, Cardigan Bay, Morecambe Bay, Solway Frith.

RIVERS. — Thames, Great Ouse, Severn, Trent, Mersoy, Yorkshire Ouse, Tyne.

WALES.

COUNTIES.—1. Anglesea; 2. Caernarvon; 3. Denbigh; 4. Flint; 5. Merioneth; 6. Montgomery; 7. Cardigan; 8. Pembroke; 9. Caermarthen; 10. Glamorgan; 11. Brecknock; 12, Radnor. To gor, Asap 7. Co forda Swar teign Is M Plina C. Head R

> Atla lnv Du Du Can gow cud Har Por Du Ke C Inve Mor dine man

> > king

E

mar

Banbury ; r, Brentvade ; 31. lton ; 33. uthwark ; n, Dover, tings ; 37. Orchester, 10. Laun-

Douglas, cilly Isles, Newport, udisferne; hich is St. s of Scotmygent; 20, Malp. Keswick; Winander

Foreland, s, St. AL one Light

Humber Goodwin nts Bay, Cardigan

, Mersoy,

bigh; 4. gan; 8. . BreckTowns.—1. Beaumaris, Holyhead; 2. Caernarvon, Bangor, Conway; 3. Denbigh, Wrexham, Ruthin; 4. Flint, St. Asaph; 5. Harleigh, Bala; 6. Montgomery, Welchpool; 7. Cardigan, Aberystwith; 8. Pembroke, St. David's, Haverfordwest; 9. Caermarthan, Kidwelly; 10. Cardiff, Llandaff, Swansea; 11. Brecknock, Builth; 12. New Radnor, Presteign, Knighton.

ISLANDS.—Skerry or the Isle of Seals, Bardsey, Ramsey.

MOUNTAINS.—In 2, Snowdon; 5. Berwyn, Cader Idris; 6. Plinlimmon; 11. Van or Brecknock Beacon.

CAPES.—Great Ormes Head, Strumble Head, St. David's Head, Gowen's Point, Worm's Head.

RIVERS.—Dee, Clwyd, Severn, Wye.

(b) SCOTLAND.

BOUNDARIES.—N. Northern Ocean; E. German Ocean; S. England and the Irish Sea; W. Atlantic.

PRINCIPAL TOWNS.---EDINBURGH, Glasgow, Inverness, Aberdeen, Forfar, Montrose, Cupar, Dunkeld, Perth, Dundee, Kinross, Kirkcaldy, Dunfermline, Alloa, Stirling, Falkirk, Inverary, Campbellton, Dumbarton, Greenock, Port Glasgow, Paisley, Ayr, Kilmarnock, Stranraer, Kirkcudbright, Dumfries, Annan, Moffat, Lanark, Hamilton, Peebles, Selkirk, Linlithgow, Leith, Porto Bello, Musselburgh, Dalkeith, Haddington, Dunbar, N. Berwick, Dunse, Coldstream, Lauder, Kelso, Jedburgh, Hawick.

COUNTIES.—1. Caithness; 2. Sutherland; 3. Ross; 4. Inverness; 5. Argyle; 6. Cromarty; 7 Nairn; 8. Elgin or Moray; 9. Banff; 10. Aberdeen; 11. Mearns or Kincordine; 12. Forfar or Angus; 13. Fife; 14. Kinross; 15. Clackmannan; 16. Perth; 17. Dumbarton or Lennox: 18. Stirking; 19. Linlithgow or W. Lothian; 20. Edinburgh or Mid Lothian; 21. Haddington or E. Lothian; 22. Berwick or Merse; 23. Roxburgh or Teviotdale; 24. Dumfries; 25. Kirkcudbright or E. Galloway; 26. Wigton or W. Galloway; 27. Ayr; 28. Renfrew; 29. Lanark or Clydesdale; 30. Peebles or Tweeddale; 31. Selkirk; 32. Bute and Arran; 33. Orkney and Shelland.

Towns.-1. Wick, Thurso; 2. Dornoch; 3. Dingwall, Tain, Fortrose ; 4. Inverness, Fort George, Fort Augustus, Fort William ; 5. Inverary, Campbellton ; 6. Cromarty ; 7. Nairn; 8. Elgin, Forres, Fochabers; 9 Banff, Cullen; 10. New Aberdeen, Old Aberdeen, Peterhead, Fraserburgh; 11. Bervie, Stonehaven; 12. Dundee, Forfar, Montrose; 13. St. Andrews, Cupar, Dunfermline, Falkland, Kinghorn, Kirkcaldy; 14. Kinross; 15. Clackmannan, Alloa; 16. Perth, Scone, Dunkeld, Crieff, Dumblane; 17. Dumbarton; 18. Stirling, Falkirk ; 19. Linlithgow, Borrowstonness or Eo'ness, S. Queen's Ferry; 20. EDINBURGH, Leith, Porto Bello, Musselburgh, Dalkeith; 21. Haddington, Dunbar, N. Berwick; 22. Grenlaw, Dunse, Coldstream, Lauder; 23. Jedburgh, Kelso, Hawick Melrose; 24. Dumfries, Annan, Moffat, Sanguhar; 25. Kirkcurdbright, New Galloway, Castle Douglas; 26. Wigton, Whitehorn, Stranraer, Port Patrick; 27. Ayr, Irvine, Kilmarnock; 28. Renfrew, Port Glasgow, Greenock, Paisley; 29. Lanark, Hamilton, Glasgow; 30. Peebles ; 31. Selkirk, Galashiels ; 32. Rothsay ; Brodwick, Lamlash; 33. Kirkwall, Stromness; Lerwick, Scalloway.

1sLANDS.—Orkney Islands or the Orcades, principal Mainland or Pomona, Hoy; Shetland Islands, principal Mainland, Yell; Western Islands or the Hebrides, principal Lewis, Harris, Sky, Mull, Jura, Isla, Iona or Icolmkill.

MOUNTAINS.—In 3, Ben Wyvis; 4. Ben Nevis, Cairngorm, Corriarok; 5. Ben Cruachan; 11. Mount Battock; 16. Grampian and Ochill hills, Shehallion. Ben Lawers, Ben More Ben Voirlich, Ben Ledi; 18. Ben Lomond; 20. Pentland Hills; 21. N. Berwick Law; between 21. and 22. Lommermuir Hills; in the S. of 23. Cheviot Hills; in the N. of Dumfrics, Moffat and Lead Hills; in 29. Tinto.

LARES.—In 2. Shin; 3. Marce, Broom; 4. Ness, Lochy, Linnhe; 5. Etive, Awe, Fync, Long; 14. Leven; 16. Tay, Rannoch, Ericht, Ketterin, Erne; 17. Lomond; 26. Ryan.

BAVS AND FRITHS.—Friths of Forth, Tay, Murray, Cromarty, Dornoch, Pentland, Clyde, Solway; Bays of Wigton and Glenluce; the Sounds of Mull, Jura, Isla; the Whirlpool of Corryverkan, the Minch. CAI Kinna Head, Mulls Riv Spey,

Bo St. G PF Wex erick Antri PRO Cot lin; 4 8. Kin Kildar Cot derry 8. Ari Cou 4. Wa Co Mayo Toy 2. Tr low, ford, 9. Ma Old I To 2. An raine Kilmo To 3. Co 6. Li

erwick or ries; 25. Falloway; dale; 30. rran; 33.

Dingwall, Augustus, narly; 7. llen; 10. urgh; 11. rose; 13. prn, Kirk 16. Perth. lon; 18. s or Eo'prto Bello, N. Ber-23. Jednan, Mofay, Castle t Patrick : Glasgow, gow; 30. Brodwick, lloway. pal Main-Mainland, wis, Har-

airngorm, lock; 16. Ben More Pentland 22. Lomthe N. of

ss, Lochy, 16. Tay, 5. Ryan. ray, Croof Wigton he WhirlCAPES.—St. Abb's Head, Fifeness, Bullers of Buchan, Kinnaird's Head, Tarbetness, Duncansbay Head, Dannet Head, Cape Wrath, Butt of Lewis, Point of Ardnamurchan, Mulls of Cantyre and Galloway, Burrow Head, Southernness. RIVERS.—Forth, Tay, Tweed, Clyde, Teviot, Annan, Nith, Spey, Dee.

(c) IRELAND.

BOUNDARIES.—N. Atlantic; E Irish Sea, and St. George's Channel; S. and W. Atlantic.

PRINCIPAL TOWNS.—DUBLIN, Cork, Wicklow, Wexford, Kilkenney, Waterford, Kinsale, Limerick, Sligo, Donegal, Londonderry, Coleraine, Antrim, Belfast, Carrickfergus, Newry.

PROVINCES.-Leinster, Ulster, Munster, Connaught.

COUNTIES IN LEINSTER, 1. Louth; 2. É. Meath; 3. Dublin; 4. Wicklow; 5. Wexford; 6. Longford; 7. W. Meath; 8. King's County; 9. Queen's County; 10. Kilkenny; 11. Kildare; 12. Carlow.

Counties in Ulster.—1. Down; 2. Antrin; 3. Londonderry; 4. Donegal; 5. Fermanagh; 6. Cavan; 7. Monaghan; 8. Armagh; 9. Tyrone.

COUNTIES IN MUNSTER.—1. Clare; 2. Kerry; 3. Cork; 4. Waterford; 5. Tipperary; 6. Limerick.

Counties in Connaughr.—1. Leitrim; 2. Sligo; 3. Mayo; 4. Galway; 5. Roscommon.

Towns IN LEINSTER.—1. Drogheda, Dundalk, Carling ford; 2. Trim, Navan; 3. Dublin, Swords, Newcastle; 4. Wicklow, Arklow; 5. Wexford, Enniscorthy, Ferns; 6. Longford, Lanesborough; 7. Mulingar, Athlone; 8. Philipstown; 9. Maryborough; 10. Kilkenny; 11. Kildare; 12. Carlow, Old Leighlin.

Towns IN ULSTER.—1. Downpatrick, Newry, Dromore; 2. Antrim, Belfast, Carrickfergus; 3. Londonderry, Coloraine; 4. Donegal; Ballyshannon; 5. Enniskillen; 6. Cavan, Kilmore; 7. Monaghan; 8. Armagh; 9. Dungannon. Towns IN MUNSTER.—1. Clare, Ennis; 2. Tralee, Dingle;

TOWNS IN MUNSTER.—1. Clare, Ennis; 2. Tralee, Dingle; 3. Cork, Kinsale, Youghall; 4. Waterford; 5. Tipperary; 6. Limerick. ISLANDS. -- Rathlin, Copeland, Clare, S. Isles of Arran, Achill, N. Isles of Arran, Tory.

LAKES.-Neagh, Erne, Allen, Conn, Mask, Corrib, Ree, Killarney, the Devil's Punch Bowl.

BAYS.—Carrickfergus, Strangford, Carlingford, Dundalk, Dunmanus, Bantry, Kenmare River, Dingle, Galway, Clew, Sligo, Donegal, Loughs Swilly and Foyle.

CAPES.—Fair Head, Howth Head, Carnsore Point, Caps Clear, Mizzen Head, Loop Head, Slyne Head, Urris Head, Malin Head.

RIVERS.—Shannon, Barrow, Boyne, Liffey, Slaney, Blackwater, Lee, Bandon, Ban, Lagan Water.

41 C

(d) FRANCE.

.

.....

PRINCIPAL TOWNS.—PARIS, Versailles, St. Cloud, Fontainbleau, Rouen, Havre, Dieppe, Boulogne, Calais, Dunkirk, Lille, Amiens, Rheims, Caen, Brest, Nantes, Rochelle, Bordeaux, Bayonne, Toulouse, Montpellier, Marseilles, Grenoble, Lyons, Strasbourg, Metz, Orleans, Tours, Angers. ISLANDS.—Ushant, Belleisle, Noirmoutier, Rhe, Oleron, Hieres, Corsica, in which are Bastia, Ajaccio, Calvi.

MOUNTAINS.—Pyrenees, Alps, Jura, Vosges, Cevennes, Puy de Dome, Cantal.

RIVERS.—Seine, Loire, Rhone, Garonne.

(e) SPAIN.

PRINCIPAL TOWNS.—Madrid, Toledo, Talavera, Badajos, Seville, Cadiz, Trafulgar, Gibraltar, Malaga, Granada, Murcia, Carthagena, Valencia,

Bilbo Santil Corru dad H M Urbia Blan CA R Guad

1. See

-1. F

anza

Ved

St.]

1 1

l Gal N

the

1 E

C

Alica

n. s of Arran,

Corrib, Ree,

rd, Dundalk, alway, Clew,

Point, Caps Urris Head,

laney, Black-

the state

e, Dieppe,

ns, Rheims,

, Bayonne,

Grenoble,

rs, Angers.

utier, Rhe, are Bastia,

sailles, St.

Alicant, Barcelona, Tortosa, Saragossa, Pampeluna, Bilboa, Vittoria, St. Sebastian, Fontarabia, Oviedo, Santiliana, Santander, St. Jago de Compostella, Vigo, Corrunna, Ferrol, Leon, Astorga, Salamanca, Ciudad Rodrigo, Burgos, Valladolid.

MOUNTAINS,—Pyrenees, Sierra de las Asturias, Urbia or Guadarama, Toledo, Morena, Nevada, Blanca, Rock of Gibraltar, Montserrat.

CAPES.—Finisterre, Ortegal, Europa Point.

RIVERS.—Minho, Douro, Tagus, Guadiana, Guadalquiver, Ebro.

a and the second

.

PRINCIPAL TOWNS.—LISBON, Oporto, Braganza, Coimbra, St. Ubes, Cintra, Vimiera, Torres Vedras.

CAPES --- Rock of Lisbon, D'Espichel, St. Vincent, St. Mary.

ra, Vosges,

nne.

, Talavera, Gibraltar, , Valencia,

(g) SWITZERLAND.

AND A MARKED AND FRANK

PRINCIPAL TOWNS.—Berne, Basle, Geneva, St. Gall.

MOUNTAINS.—Alps, (including the Rhaetian, in the S. E.; and the Helvetian, in the S. W.) LAKES.—Geneva, Constance or Boden Sea. RIVERS.—Rhine, Rhone.

(h) ITALY.

PRINCIPAL TOWNS — ROME, Naples, Florence, Genoa, Turin, Perugia, Loretto, Capua, Brindisi, Otranto, Tarento, Reggio, Maida; Palermo, Messina, Catania, Augusta, Syracuse, in Sicily;—Cagliari, Sassari, in Sardinia;—Valetta, in Malta.

MOUNTAINS.—Alps, Apennines; Mounts Vesuvius, Ætna.

GULFS AND STRAITS.—Venice, Naples, Genoa; Straits of Messina, Bonifacio.

CAPES.—-Spartivento, Passaro. RIVERS.—Po, Tiber.

(i) GERMANY.

PRINCIPAL TOWNS.---HANOVER, Brunswick, Bremen, Hamburgh, Dresden, Stuttgard, Munich, Weimar, Frankfort on the Mayne, Baden, Constance, Ratisbon, Landshut, Mentz or Mayence, Coburg.

RIVERS.—Rhine, Danube, Elbe, Weser.

(k) HOLLAND.

PRINCIPAL TOWNS.—AMSTERDAM, Rotterdam, the Hague, Utrecht, Leewarden, Groningen.

(l) BELGIUM.

PRINCIPAL TOWNS.-BRUSSELS, Antwerp Ghent, Ostend, Mons, Liege, Waterloo. RIVERS.-Scheldt or Escaut, Maese or Meuse. Aal tadt I Prin lan S Lit

> hal Dro Boi

str

sta ST bei

(m) DENMARK.

Florence, Brindisi, mo, Mesy;--Caglalta. nts Ves-

, Genoa ;

unswick, Munich, en, Con-Mayence,

Г.,

otterdam,

Intwerp Meuse. PRINCIPAL TOWNS.—COPENHAGEN, Elsinote, Aalborg, Viborg, Sleswick, Kiel, Alto., Gluckstadt.

ISLANDS.—Iceland, in which is Mount Hecla, Principal 'Fown, Skalholt; Ferro Islands, Greenland.

Sounds.—The Skaw, the Sound, Great Belt, Little Belt.

(n) NORWAY.

PRINCIPAL TOWNS.—CHRISTIANA, Frederickshall, Christiansand, Arendal, Kongsberg, Bergen, Drontheim, Wardhus, Waranger.

ISLANDS.—Mageroe, Loffoden, Waeroe, Hitteren, Bommel.

MOUNTAINS.-Langfiall, Dofrafiall, Kolen.

BAYS AND CAPES.—N. Cape, W. Fiord, Maelstrom, Naze or Lindenaês.

RIVERS .--- Glomme, Dramme, Tana.

(o) SWEDEN.

PRINCIPAL TOWNS.—Gottenburg, Christianstadt, Carlserona, Kalmar, Malmo, Norkoping, STOCKHOLM, Upsal, Geffle, Fahlun or Copperberg, Nykoping, Tornea, Umea, Pitea.

ISLANDS.—Gothland, Oland.

LAKES.-Wener, Wetter, Maeler.

'RIVERS.-Gotha, Motala, Dahl, Tornea,

(p) RUSSIA.

38

PRINCIPAL TOWNS.—ST. PETERSBURG, Cronstadt, Revel, Riga, Olonetz, Archangel, Onega, Kola, Wologda, Novogorod, Perm, Moscow, Smolensk, Orel, Kiew, Voronetz, Poltova, Ekaterinoslav, Cherson, Oczakow, Odessa, Perekop, Caffa or Theodosia, Simpheropol, Sevastopol, Azof;—Abo, Helsingfors, Ulea;—Mittau, Libau, Windau, Wilna, Warsaw, Praga, Pultusk, Lublin, Cracow;—Bender, Belgorod or Akerman, Ismail, Kishenau.

ISLANDS.—Aland, Dago, Oesel, Kolguef, Waygats, Nova Zembla, Spitzbergen.

MOUNTAINS -Olonetz, Valdai, Taurida, Ural.

SEAS, GULFS, AND STRAITS.—Gulfs of Bothnia, Finland, Riga; White Sea, Sea of Azof; Straits of Caffa or Enikale; Waygats Straits.

RIVERS.—Wolga, Don, Dneiper, Bog, Dneister, Vistula, Memel or Niemen, W. Dwina, Onega, N. Dwina, Pruth, Danube.

(q) AUSTRIA.

PRINCIPAL TOWNS.—VIENNA, Laybach, Trieste, Inspruck, Trent, Presburg, Buda, Pest, Tokay, Temeswar, Peterwardein ;—Prague ; Olmutz ; Leopold ; Ragusa, Cataro ;—Venice, Padua, Verona, Belluno ; Milan, Lodi, Como, Mantua.

MOUNTAINS.—Carpathian, Rhaetian Alps or Brenner Mountains.

RIVERS.-Danube, Elbe.

Mu

Ch

TIN

Vo

Sa No

16 1

Ol

A

M

C

ac

th di

be

(r) PRUSSIA.

Cron-Onega, oscow, Ekaerekop, istopol, Libau, Libau, smail,

Way-

Ural. othnia, raits of

icister,

vokay, okay, nutz; , Ve-

is or

PRINCIPAL TOWNS.—Konigsberg, Meinel, Tilsit, Dantzig, Thorn, Stettin, Colberg, BERLIN, Frankfort on the Oder, Breslau, Glogau, Magdeburg, Munster, Minden, Cologne, Coblentz, Aix la Chapelle.

(s) TURKEY IN EUROPE.

PRINCIPAL TOWNS.—Jassy, Belgrade, CONSTAN-TINOPLE, Adrianople, Nicopoli, Saloniki, Larissa, Volo, Durazzo, Arta.

ISLANDS.—Cerigo, Zante, Cephalonia, Teaki, Santa Maura, Paxo, Corfu, ceded to Britain, 5th November, 1815, under the denomination of the "United States of the Ionian Islands."

MOUNTAINS.—Haêmus or Balkan ; Athos, Olympus, Ossa, Pelion, Pindus, in the S. RIVERS.—Danube, Marizza, Vardar.

(t) GREECE.

PRINCIPAL TOWNS.—ATHENS, Tripolizza, Coron, Argos, Corinth, Thebes.

MOUNTAINS.—Parnassus and Helicon, in the N.; Mainote or Taygetus, in the S.

CAPES .- Modon, Matapan, Malio or St. Angelo.

ANTIQUITIES. - The Seven Wonders of the World were -1. The Colossus at Rhodes, a Statue of the Sun, 70 cubits high, placed across the mouth of the harbour. A man could not grasp its thumb with both his arms. Its legs were stretched out to such a distance, that a large ship under sail might easily enter the port between them. Its construction occupied 12 years, and cost 300.

talents. (A Rhodian talent is worth £322 18s sterling.) It stood 50 years, and at last was thrown down by an earthquake. 2. The Temple of Diana, at Ephesus, was a work of the greatest magnificence ; 220 years were spent in finishing it, though all Asia was employed. It was supported by 127 pillars, raised by as many Kings, and each 60 feet high. Of these columns 37 were engraven. The Image of the Goddess was made of Ebony. 3. The Masso-leum or Sepulchra of Mausolus, King of C ria, built by his Queen, Artemisia, of the purest marble; and yet the workmanship of it was much more valuable then the materials. It was, from N. to S. 63 feet long, almost 411 fect in compass, and 25 cubits (that is about 35 feet) high, surrounded by 36 columns, beautiful in the highest degree. 4. An Ivery Statue of Jupiter, in the Temple of the City Olympia, carved with the greatest art 1 y Phidias, and of a prodigious size. 5. The Walls of Babylon. (the metropolis of Chaldea) creeted by Queen Semiramis. Their circumference was 60 miles, their height 200 fect, and their breadth 50 fect; so that six chariots abreast might conveniently pass upon them. 6. The Pyramids of Egypt, the first of which is constructed of great stones, the least of which is 30 feet in length; 360,000 men were employed in building it for the space of 20 years. 7. The Royal Palace of Cyrus, King of the Medes, made by Menon, with no loss prodigality than art; for he cemented the sones with gold.

ASIA.

BOUNDARIES.—N. Northern Ocean; E. Pacific; S. Indian; W. Europe, Black-Sea, Archipelago, Levant, Isthmus of Suez, and Red Sea.

DIVISIONS.—'Turkey in Asia, (a); 2. Arabia; 3. Persia; 4. Hindostan, (b); 5. Eastern Peninsula, (c); 6. China, (d); 7. Tibet; S. Eastern or Chinese Tartary; 9. Russian 'Tartary or Siberia, (e); 10. Western or Independent Tartary, (f.)

CAPITALS.—1. Aleppo; 2. Mecca; 3. Teheran; 4. Calcutta; 5. Ava; 6. Pekin; 7. Lassa; 8. Sagalien Oula Hotun; 9. Tobolsk; 10. Bokhara.

ISLANDS.—Cyprus, Ceylon, Sumatra, Java, Borneo, Celebes, Philippine, Japan, New Guinea, Australia (g), Van Dieman's Land, New Zealand. Mount Taurus, and Hore SEAS A of Bengal Nankin; Sea of Oc Sea of An STRAIT da, Behri Rivers ku, Gang

DIVISIO Caraman Canaan, or Alge Armenia Towns gora, To mascus, Tarabolt Tyre, Pt lis or B Jericho; Mosul, . Babylon 6. Trebis Moun Ararat. LAKE RIVER od 'he

ni-

vas ny

en.

en, it

t is

the

e of

of

100

80 6.

eat eno yal ess

с;

ŗ0,

۱;

n-

or

ia,

1;

a-

r-

a,

d.

MOUNTAINS.—Uralian, Altaian, Caucasus, Ararat, Taurus, Lebanon, Himmaleh;—Mounts Sinai, and Horeb.

SEAS AND GULFS.—Red Sea, Arabian Sea, Bay of Bengal; Gulfs of Siam and Tonquin; Bay of Nankin; Whanghay or Yellow Sea, Gulf of Corea, Sea of Ochotsk, Sea of Kamtschatka, Caspian Sea, Sea of Aral, Persian Gulf.

STRAITS.—Babelmandeb, Ormus, Malacca, Sunda, Behring.

RIVERS.—Ob or Oby, Yenisei, Hoang-ho, Kianku, Ganges, Indus, Euphrates, Tigris.

(a) TURKEY IN ASIA.

DIVISIONS.—1. Asia Minor, (including Anatolia, Caramania, and Roum); 2. Syria, (including Canaan, Palestine or the Holy Land); 3. Diarbeck or Algezira; 4. Irak-Arabi; 5. Curdistan; 6. Armenia or 'l'urcomania.

Towns.—Smyrna, Aiosoluc or Ephesus, Angora, Tocat; 2. Aleppo, Antioch, Damas or Damascus, Jerusalem, Alexandretta or Scandaroon, Tarabolus or Tripoli, Sayde or Sidon, Sur or Tyre, Ptolemais or Acre, Joppa or Jaffa, Heliopolis or Balbec, Tadmor or Palmyra (in ruins), Jericho; 3. Diarbeck or Diarbekr, Ninêveh or Mosul, Anah; 4. Bagdad, Bassora, Hillah or Babylon; 5. Betlis or Bedlis, Van, Irbil or Arbela; 6. Trebisonde, Erzeroum.

MOUNTAINS.—Taurus, Olympus, Ida, Lebanon, Ararat.

LAKES --- Ulubad, Sea of Galilee, Dead Sea, Van. RIVERS.-- Orontes, Jordan, Euphrates, Tigris.

(b) HINDOSTAN.

42

DIVISIONS.—1. Gangetic; 2. Sindetic; 3. Central; 4. Southern Hindostan.

Towns.—1., Calcutta, Moorshedabad, Patna, Allahabad, Lucknou, Agra, Delhi; 2. Kuttore, Cashmere, Lahore, Moultan; 3. Ahmedabad, Cambay, Surat, Visagapatam, Juggernaut, Hydrabad, Golconda, Masulipatam, Goa, Bombay; 4. Seringapatam, Arcot, Madras, Pondicherry.

ISLANDS.—Ceylon, Maldives, Laccadives, Andaman Isles. In Ceylon are Candy, Columbo, Trincomalé.

MOUNTAINS.—Himmalaya, Eastern and Western Ghauts.

GULFS.—Gulfs of Cutch and Cambay; Cape Comorin; Gulf of Manara, Adam's Bridge, Palk's Passage, Bay of Bengal.

RIVERS.—Ganges, Indus, Burhampooter or Brahmapootra.

(c) EASTERN PENINSULA.

Divisions.—1. The Birman Empire; 2. Malaya or Malacca, &c.

PRINCIPAL TOWNS.—1. AVA, Ummerapoora, Prome; Pegu, Rangoon, Sirian, Martaban; 2. Malacca, Queda, Ligor, Singapore.

RIVERS.—Irrawady, Thaluan, Meinam, Maykaung. I

Cir

To

Eri

To

uts

hot

F

(f

arc

S.

Λ

P

43

PRINCIPAL TOWNS.—PEKIN, Nankin, Canton, Singan.

ISLANDS.—Hainan, Formoso, Loo Choo, Tchusan, Macao, S. of Canton.

RIVERS.—Hoang-ho or Yellow River, Kian-ku or Blue River, Choo-kiang or River of Canton.

(e) RUSSIAN TARTARY or SIBERIA.

Divisions.—1. Caucasus, (including Georgia, Circassia, &c.); 2. Astracan; 3. Orenberg; 4. Tobolsk; 5. Irkutsk.

PRINCIPAL TOWNS.—1. Teflis, Derbend, Baku, Erivan; 2. Astracan; 3. Oufa, Orenberg; 4. Tobolsk, Catharinburg, Tomsk, Kolivan; 5. Irkutsk, Kiachta, Nertchinsk, Omsk, Yakutsk, Okhotsk.

MOUNTAINS.—Caucasus, Uralian, Altaian. RIVERS.—Ural, Ob or Oby, Yenisei, Lena.

(f) WESTERN or INDEPENDENT TARTARY.

DIVISIONS.—1. Kharism; 2. Great Bucharia. PRINCIPAL TOWNS.—1. Khiva, Urghenz; 2. Samarcand, BOKHARA, Balk, Khojund. MOUNTAINS.—Gaur, Belur Tag.

(g) AUSTRALASIA.

1. New S. Wales, and New Holland;—in New S. Wales are Botany Bay, Port Jackson, Sydney;

3. Cen-

Patno, Kuttore, ad, Camydrabad, ... Sering-

res, An-Columbo,

nd Wes-

y; Cape ge, Palk's

ooter or

; 2. Maerapoora, ban ; 2. m, May2. Van Diemen's Land, in which are Hobart Town, Port Dalrymple;—3. Lord Howe's and Norfolk's Islands;—4. Papua or New Guinea; 5. New Britain, New Ireland, Solomon Isles; 6. New Hebrides; 7. New Caledonia; 8. New Zealand.

POLYNESIA.

1. Pelew Islands; 2. Ladrone or Marian Isles; 3. Lot's Wife; 4. 'I'he Carolines; 5. T'he Sandwich Isles, principal Owhyhee; 6. 'The Marquesas; 7. 'The Society Isles, principal Otaheité, Ulitea; 8. Friendly Isles; 9. Feegee Isles; 10. Islands of Navigators.

ANTIQUITIES.—The Antiquities of Asiatic Turkey, once the chosen seat of the Arts, are numerous and important. The most splendid ruins are those of Palmyra or Tadmor, in the Desert. The most remarkable relic of Balbec, the ancient Heliopotis, is a Temple, supposed to have been dedicated to the Sun. Recent investigation has disclosed another scene of antiquity, in the site and celebrated plain of Troy, towards the mouth of the Hellespont. In Analolia or Asia Minor, were the Seren Churches of Asia, mentioned in the Book of Revelation, viz:—Pergamos, Laodicea, Philadelphia, Thyatira, Sardis, Ephesus, and Smyrna; but these places, except Smyrna, are mostly in ruins. In Syria were Palestine or the Holy Land, Canaan, Judea, Galilee, Phanicia, &c. Irak Arabi was formerly called Chaldea and Padanaram.

AFRICA.

BOUNDARIES.—N. Mediterranean; E. Isthmus of Suez, Red Sea, Indian Ocean; S. Southern; W. Atlantic.

Divisions.-1. Egypt, (a); 2. Nubia, (b); 3. Abyssinia, (c); 4. Barbary, (including Morocco and Fez, Barc or N Guin 11. A 14. / PR dar; Dern zamb Isi Made Tho 6. M ritins Mo of th Jebel sinia LA Haik Gu Salda Moza Gulf CA Thre rient Rı Sene ADI of,-1 Dates II. Coas 11. A

t Town, Norfolk's 5. New 6. New land.

in Isles; ne Sand-Marque-Dtaheité, sles; 10.

7, once the The most the Desert. liopolis, is a m. Recent in the sive the Helles-Churches of Pergamos, d Smyrna; In Syria Utlee, Phaand Pada-

thmus of ern ; W.

(b); 3.

Fez, (d), Algiers, (e), Tunis, (f), Tripoli, (g), Barca, (h); 5. Zaara or the Desert; 6. Negroland or Nigritia or Soudan; 7. Senegambia; 8. Upper Guinea; 9. Lower Guinea; 10. Cape Colony; 11. Mocaranga; 12. Mozambique; 13. Zauquebar; 14. Ajan.

PRINCIPAL TOWNS.—1. Cairo; 2. Senaar; 3. Gondar; 4. Morocco; 5. Algiers; Tunis; Tripoli; Derna; 6. Timbuctoo; 10. Cape Town; 12. Mozambique; 13. Mombaza; 14. Brava.

ISLANDS.—1. Azores or Western Islands; 2. Madeiras; 3. Canaries; 4. Cape Verde; 5. Sf. Thomas, St. Mathew, Ascension, St. Heiena; 6. Madagascar, Bourbon, Isle of France or Mauritins.

MOUNTAINS.—Atlas, Sierra Leone or Mountains of the Lions, Mount Lupata, Donga Mountains, Jebel Kumrah or Mountains of the Moon, Abyssinian Mountains

LAKES.—Dembea, Tchad, Maravi, Zawaja, Haik.

GULFS, BAYS AND STRAITS.—Gulf of Guinea; Saldanha, Table, False, Algoa Bays; Channel of Mozambique, Straits of Babelmandeb, Red Sea; Gulfs of Sidra and Cabes; Straits of Gibraltar.

CAPES.—Bojador, Blanco, Verde, Roxo, Palmas, Three Points, Formesa, Negro, Good Hope, Corrientes, Guardafui.

RIVERS-Nile, Niger or Joliba or Quorra, Senegal, Gambia, Zaire or Congo.

ADDITIONAL DIVISIONS.—I. S. of Barbary are the States of, -1. Darch; 2. Tafilet; 3. Sejelmissa; 4. The Land of Dates; 5. The Kingdom of Fezzan.

II. Upper Guinea contains, --6. Sierra Leone; 7. Grain Coast; 8. lvory Coast; 9. Gold Ceast; 10. Slave Ceast; 11. Ashantee; 12. Dahomey; 13. Benin; 14. Laberia.

ANTI

to have

begun,

Christ,

attracte

--one c square

ofsmal

from th

like fea

more th

commu its mag

trates, i

that ent pits of

though

in a per

for the

towns.

the Gre

niches, quadrai

terious

which a

and the

are nea: have b

and the

and Cle

nite Ma

an Obc Temple

vast an

orname

covered

near 7

adorned

brillian

17. Angola ; 18. Benguela ; 19. Mataman or Cimbarras.

1V.—Southern Africa contains the Countries of 20. The Caffres or Unbelievers; 21. Hottentots; 22. Boshmans or Boshuans.

V.—The Eastern Coast contains,—23. Sabia and Sofala; 24. The Kingdom of Adcl.

VI.—Central Africa contains,—25. Bondou ; 26. Kasson ; 27. Ludamar ; 28. Karta ; 29. Kong ; 30. Bambarra ; 31. Beroo ; 32. Timbucioo ; 33. Houssa ; 34. Bornu ; 35. Begharmi ; 36. Darfur ; 37. Kordofan ; 38. Funda ; 39. Yarriba ; 40. Borgoo ; 41. Nyffee ; 42. Zeg-zeg.

ADDITIONAL TOWNS.—(a) Alc: andria, Rosetta, Damietta, Suez, Cosseir, (Syene.) Edfou, Ruins of Thebes, Dendera, (Tentyra.) Girgeh ;—(b) Dongola ;—(c) Axum, Dixan, Masuah ;—(d) Mogadore, Santa Cruz; Fez, Mequinez, Tetuan, Ceuta, Tangier, Sallee, Mazagan ;—(e) Gran, Bona, Constantina ;—(f) Susa, Cabes, Porto Farina, Rains of Carthage ;—(g) Mesurata, Lebida ;—(h) Piolemeta.

I.—1. Tuttah; 2. Tufilet; 3. Sejelmissa; 4. Guergela; 5. Mourzouk, Temissa, Zuela.

II.—6. Freetown; 7. Sanguin, Sestre Grand: 8. Druin; 9. Cape Coast Castle, Acanni; 10. Praya; 11. Coomassie; 12. Abomey, Whidah, Ardrah; 13. Benin, Calabar; 14. Monrovia.

111.-15. Loango; 16. St. Salvador; 17. St. Paul de Loanda; 18. New Benguela, Old Benguela.

IV.—22. Lattakoo, Malapeetzee, Kurecchance, Bakarrikarri.

V.-23. Sofcla; 24. Zeila.

VI.—25. Fatteconda; 26. Kooniacary; 27. Jarra, Benowm;
28. Kemmoo; 29. Kong; 30. Sego, Jenné, Silla, Sansanding;
31. Walet; 32. Timbuctoo; 33. Sackatoo, Cassina, Kano;
34. Bornou, Kouka, Angornou; 35. Begharmi; 36. Cobbé:
37. Obeydah; 38. Funda; 39. Eyeo or Katunga; 40. Boussa, Wawa, Kiama; 41. Koolfa; 42. Zaria.

ADDITIONAL ISLANDS.—1. St. Michael, Terceira, Pico; 2. Porto Santo; 3. Grand Canary, Ferro, Teneriffe; 4. St. Antonio, St. Nicholas, St. Jago, Mayo, Fogo; 5. Prince's Island, Fernando Po; 6. Comoro Isles, Zanzibar, Pemba, Mahe, Almirante; 7. Kerguelan's Land or Island of Desclation, Amsterdam, St. Paul, Tristan d'Acunha, S. E. and S. W. of Africa; (see Map of the World.) 16. Congo; nbarras. of-20. The Boshmans or

and Sofala ;

26. Kasson ; nbarra ; 31. u; 35. Beg-39. Yarriba ;

a, Damietta, les, Dendera, Diran, Masnez, Tituan, , Bona, Conns of Carth-

. Guergela ;

8. Druin; 9. omassie; 12. 4. Monrovia. St. Paul de

ce, Bakarri-

ra, Benowm; Sansanding; issina, Kano; ; 36. Cobbé; a; 40. Bous-

rceira, Pico teriffe; 4. St. 5. Prince's zibar, Pemba, nd of Descla-S. E. and S.

ANTIAUTIES. - The Egyptian Pyramids are generally supposed to have been intended as Mausoleums for the Kings. They were begun, it was conjectured, about 1201 years before the birth of Christ, by Cheops and Cephrenes. Four of those erections have attracted particular attention. The largest two are 500 feet high; —one of them covers 10 English acres of ground, being an exact square of 600 feet. There are 6 or 7 similar structures, in the Desert, of smaller dimensions. The Sphynx, a rock at no great distance from the largest pyramid, is shaped into the head, bust, and Negro-Ike features of a Woman. It was formerly 60 feet high, but is now more than half buried in the sand. The Isle of Pharos, which communicated with Alexandria by a bridge, was once fained for its magnificent Tower and Lighthouse, built by the architect Sostrates, in the reign of *Piolemy Piolade';* bus, at the sole expense of that enterprising monarch. Near the pyramids are the *Mummy-pits* of Egypt. A mummy is an emba med body. Many of these, though buried more than 3,000 years since, are dug from the pits in a perfect state of preservation. The Catacombs are repositories for the Dead, consisting of large vaules, in the environs of the towns. Those in Alexandria were chiefly used as burial-places by the Greeks, and the coffins are placed in an upright position in niches, regularly ranged in the walls. The Obelishs were high quadrangular spires of granice, ad med with hieroglyphics or mysterious characters, representing the number of tributary nations which acknowledged the sway of the great Sesestris, his victories, and the extent of his Empire. The Lebyrinth, (the ruins of which are near Lake Moeris,) contained 300 rooms and 12 halts said to have been built by 12 Kings, as Mausoleums for the Royal Race, and the Sacred Crocodiles. At Alexandria are Pompey's Pillar and Cleopatra's Needle. The former is one entire piece of Granile Marble, 70 feet high, and 25 in circumference. The latter is an Obelisk, on which mystical characters are inscribed. The Temples, particularly those of Thebes, Edfu, and Tentyra, are of vast antiquity, and the largest in the world. They are highly ornamented, in the peculiar style of Egyptian architecture, and covered with numerous hieroglyphics. The Tombs of the Kings, near Thebes, form vast ranges of subterrancous apartmen's, adorned with ancient paintings, the colours of which are still brilliant.

1. EXTENT OF COUNTRIES, WITH THEIR POPULATION TO A SQUARE MILE.

•	Square Miles.	Inhabitants to one square mile.
N. America,	9,000 000	3
S. America,	6 50.),000	3
Europe,	3.750,000	34
Asia,		36
A frica		10
Lower Canada	• 200,000	3
Upper Canada,	: 140,000	2
United States,	· 1,000 000	13
England and Wales,	. 58,000	240
Scotland,		79
Ireland,		256

II. MOUNTAINS IN THE ORDER OF THEIR HEIGHTS.

English	Feet.
above the level	of the Sea.
Dwahalagiri, highest of Himalayah,	28,500
Sorata, highest of the Andes,	25,600
Chimborazo, S. America,	21,800
Volcano of Cotopaxi S. America,	19,500
Elbraz, highest of Caucasus,	18,200
Mount St. Elias, N. America	18,100
Volcano of Popocatepec, Mexico,	18,020
Mount Ararat, Turkey in Asia,	17,500
Mountain of Potosi, S. America,	16 300
Mount Blanc, highest mountain in Europe,	15,680
Mountains of Geesh, Abyssinia, Africa,	15,050
Peak of Tenerifie, Canary Islands, Africa,	12,236
Atlas, highest peak of Africa	11,980
James' Peak, highest of Rocky Mountains,	11,700
Mount Perdu, highest of the Pyrcnees	11,283
Ætna, Sicily,	10,963
Mount Lehanon, Turkey in Asia.	9 520
City of Quito, S. America,	9,256
St. Gothard, Switzerland,	9,075
Peak of Lomnitz, highest of the Carpathians,	8,640
Highest of the Dofrincs, Norway	8.500
Hospice of Great St. Bernard, Switzerland,	8 040
Highest peak of Blue Mountains Jamaica,	7,500
Chain of Olympus, Turkey in Europe	6.500
Mount Washington, highest of the Alleghanies,	6,500
Chain of Mount Ida, Turkey in Asia	4,960
Hecla, Iceland,	4.900
Vesuvius, Italy,	3,900
Table Mountain. Cape of Good Hope,	3,582
Mount Athos, Turkey in Europe	3,353
The Ghauts, Hindostan,	3,000

48

II

ULATION

tants to one are mile. 3 3 3 3 36 10 39 13

240 79 256

HEIGHTS.

sh Feet, cl of the Sea. 28,500 25,600 21,800 19,500 18,200 18,100 18,020 17,500
16 300
15,680 15,050 . 12,236 . 11,980 . 11,700 · 11,283 · 10,963 · 9 520 9,256 • 9,075 ٠ 8,640 • 8.500 • 8 040 . 7,500 ٠ 6.500 . 6,500 • 4,960 4.900 3,900 . . 3,58**2** 3,35**3** • • • • 3,000 . .

III. MOUNTAINS IN GREAT BRITAIN AND IRELAND.

	Feet.
Ben Nevis, the highest mountain in Britain,	4,380
Ben Lawers, Perthshire,	4,051
Cairngorm, Inverness shire,	4,050
Ben More, Perthshire,	3 903
Snowdor, Caernarvonshire,	3,568
Schehall on, Perthshire	3 564
Cader Idris, Merionethshire,	3,550
Macgillicuddy's Reeks, Ireland,	3,404
Crossfell, Cumberland,	-3,390
Ben Lomond, Stirlingshire,	3,262
Goat-field, Arran,	2.945
Logan House, Pentland Hills, Edinburgh,	1,700
Leadhills. Dumfries shire	1,564
Arthur's Seat, Edinburgh,	810

IV. RIVERS, IN THE ORDER OF THEIR LENGTH.

	Miles.		
Amazon,	4,000		
Missouri,	4.000		
Mississippi,	3,000		
St. Lawrence,	2,000		
Nile	2,000		
Danube,	1.600		
Ganges,	1,600		
Euphrates,	1,500	**	
Indus,	1,300		
Ohio,	1.000		
Tigris,	800		
Rhine.	700	1 .	
Potomac,	600	-	
Ottawa,	500	3	5
Rhone,	500		
Tagus,	450		
Thames, England,	1180	e	
Shanon, Ireland,	170		
4		1 0	

ON THE GLOBES.

I .-- ON THE TERRES'TRIAL GLOBE.

C

b

1. 'The Artificial Terrestrial Globe represents the natural figure of the earth.

2. The Axis is the rod or wire on which the globe revolves, and represents the imaginary line or axis about which the earth itself turns.

3. 'The *Poles* of the earth or globe are the extreme points of the axis, in which it meets the surface; one of them the N. or arctic, the other the S. or antarctic.

4. The *Circles* on the globe are of two kinds, *great* and *small*. Every circle is divided into 360 degrees or equal parts.

5. There are four great circles, viz.: the Equator or Equinoctial line, the Ecliptic, the Meridian, and the Horizon; and four small ones, viz.: the Arctic and Antarctic circles, the tropics of Cancer and Capricorn.

6. The Equator is a circle every where equally distant from the poles, and divides the globe into the Northern and Southern Hemispheres.

7. The Ecliptic is a circle which cuts the Equator obliquely at two opposite points, and represents the sun's path in the heavens. It is divided into 12 equal parts called signs, and each sign into 30 degrees. The names of the signs are Aries or the Ram γ ; Taurus, the Bull \aleph ; Gemini, the Twins π ; Cancer, the Crab \mathfrak{S} ; Leo, the Lion \mathfrak{A} ; Virgo, the Virgin \mathfrak{m} ; Libra, the Balance \mathfrak{L} ; Scorpio, the Scorpion \mathfrak{m} ; Sagittarius, the Archer \bigstar ; Capricornus, the Goat \mathfrak{V} ; Aquarius, the Water-bearer \mathfrak{m} ; Pisces, the Fishes \aleph .

resents

ich the try line

the exets the e other

kinds, ed into

Equaridian, z.: the Cancer

equally be into

Equapresents ed into nto 30 or the ni, the ion \mathfrak{A} ; ce \mathfrak{L} ; is, the uarius, 8. The *Meridian* of any place is a circle conceived to pass through that place, and through both the poles, dividing the globe into Eastern and Western Hemispheres; the brass ring which surrounds the globe is called the *branen meridian*.

9. The Horizon is a great circle which separates the visible hat of the heavens from the invisible; the earth being considered as a point in the centre of the sphere of the fixed stars. The horizon, when applied to the earth, is either sensible or rational. The sensible or visible horizon is the circle which bounds our view, where the sky appears to touch the earth or sea. The rational or true horizon is an imaginary plane, passing through the centre of the earth, parrallel to the sensible horizon; it determines the rising and setting of the sun, stars, and planets.

10. The two **Tropics** are situated parallel to the equator; one on each side, at about $23\frac{1}{2}$ degrees from it. 'The northern tropic is called the **Tropic** of Cancer; the southern, the **Tropic of Capri**corn; because they touch the ecliptic at the begining of those signs.

11. The *Polar Circles* are situated at about $23\frac{1}{2}$ degrees from the poles; that on the N. is called the *arctic* circle, that on the S. the *antarctic* circle.

12. The *Horary* or hour circle, is a brass ring surrounding the N. pole, having twice 12 hours marked upon it.

13. The Quadrant of Altitude is a narrow flexible plate of brass, equal to a fourth part of the equator, and divided into 90 degrees.

14. The most remarkable points in the heavens are, 1st the *Poles*; 2d. the *Zenith* and *Nadir*; the former being the point of the heavens which is directly above us, and the latter that which is immediately under our feet; 3rd. the Cardinal points, viz.: N. S. E. and W.; 4th. the Solstitial points, the one in the first degree of Cancer, and une other in the first degree of Capricornus; 5th the Equinoctial points, in the first degrees of Aries and Libra.

me

dis

tha

Nev

pla

of

me

req

latit S.—

pla

rec

dia ink the

F

(

Fra

an tim

80

Lo

dif

wil

15

on

mu

me no

the

to

sh

E

E

15. The tropics and polar circles divide the Globe into five portions or belts, called zones; viz. : the *Torrid* zone, between the tropics; the northern and southern *Frigid* zones, within the polar circles; and the northern and southern *Temperate* zones, between the tropics and polar circles.

16. The globe is divided into Climates of halfhours, and climates of months. There are 24 half-hour climates from the equator to either polar eircle; and 6 month climates within each polar circle; making 60 climates from pole to pole.

PROBLEMS TO BE SOLVED BY THE TERRESTRIAL GLOBE.

PROBLEM I.— To find the latitude of any place.

RULE.—Bring the place to the graduated side of the brazen meridian, and the degree of the meridian that stands immediately over it shows its latitude or distance from the equator.

EXERCISES. — What is the latitude of Edinburgh, Rome, Montreal and the Cape of Good Hope ?*

PROB. II.— To find the longitude of any place.

RULE. -Bring the place to the edge of the meridian; and the degree of the equator cut by the

^{*}The number of exercises on each problem may be increased as occasion requires; the insertion of answers to them is thought quite unnecessary.

which is ardinal olstitial er, and is; 5th rees of

de the zones; is; the in the uthern l polar

f *half*are 24 r polar polar e.

TRIAL

place. d side of the ws its

, Mon-

place. meriby the

ased as thought

meridian will be the longitude of the place, or its distance east or west of the first meridian, viz. that of Greenwich.

Ex.—What is the longitude of Paris, Quebec, Jerusalem, and New Orleans? (m)

PROB. III.— The longitude and latitude of place being given, to find that place.

RULE.—Bring the given longitude to the edge of the meridian; look for the given latitude on the meridian, and immediately under it is the place required.

Ex.-What places are nearly in the following longitude and latitude? Long. 3° W. lat. 56° N.-long. 184° E. lat. 344° S.-long. 30° E. lat. 31° N.-long. 4° 15' W. lat. 40° 25' N.

PROB. IV.— To find the antaci, (n) of any place.

RULE.—Find the latitude of the place given; reckon the same number of degrees on the meridian on the opposite side of the equator, and the inhabitants of the place found under that point of the meridian will be the antœci of the place.

Ex.—Who are the antexi of the people at Montreal, Isle of France, St. Helena, and St. Domingo ?

(m) Longitude may be converted into time, by allowing 15° to an hour; consequently every degree will answer to 4 minutes of time, and 15' of a degree will answer to one minute of time; and so for the rest. Thus, for instance, any place that is 15° E. of London will have noon, and every hour of the day, one hour before the inhabitants of London: if 30° , there will be two hours' difference, and so on; because, being more eastward, that place will meet the sun so much sconer. In the same manner, any place 15° W. of London will have noon, and every hour of the day, one hour later ; at 30° , there will be two hours' difference, and so on; because, being so much more westward, that place will be so much later in meeting the sun.

(n) The antæci are those who live in the same semicircle of the meridian; but in opposite parallels of latitude : both of them have noon and midnight at the same instant of time; but the seasons of the year are different: it being summer to the one when it is winter to the other; and to the one it is the longest day when it is the shortest to the other.

PROB. V. — To find the periæci (o) of any place.

RULE.—Bring the place given to the meridian, and 12 on the hour-circle to the meridian; then turn round the globe till the other 12 comes to the meridian, and the place which is under the same degree of the meridian as the place given will show the periœci of that place.

Ex.-Who are the perioci of the people of Honduras, Jamaica, Borneo, and Lassa?

PROB.VI.-- To find the antipodes (p) of any place.

RULE.—Bring the place and 12 on the hourcircle to the meridian then turn round the globe till the other 12 comes to the meridian, and under the same degree of the meridian as the latitude of the place given, but on the opposite side of the equator, will be found the antipodes (q).

Ex.-Who are the antipodes of the people at Lima, Buenos Ayres, Owhyhee, and Canton ?

PROB.VII.-- To find the difference of latitude and the difference of longitude between two given places.

(o) The *periaci* are those who live under the same parallel of latitude, but in opposite semicircles, or opposite meridians; they have their summer and winter at the same time; but their day and night at contrary times.

(p) The antipodes are those who live diametrically opposite to each other, or stand, as it were, feet to feet, on different sides of the equator; they have their days and nights directly contrary, as also their seasons of the year; when it is summer with the one, it is winter with the other; and when it is noon to the one, it is midnight to the other.

(q) The antæci, pcriæci, and antipodes of any place, may be found thus: Place the two poles of the globe in the horizon; and bring the given place to the eastern part of the horizon; then, if the given place be in N. latitude, observe how many degrees it is to the northward of the east point of the horizon; the same number of degrees to the southward of the east point will show the antæci; an equal number of degrees. counted from the west point of the horizon towards the north, will show the periæci; and the same number of degrees. If the place be in south latitude, the same rule will serve, by reading S. for N. and the contrary. Edi Ion and

tal

the

th in

of

sid

tw

tw be

an

tu

th or

tu

Is

to

ti

n c u

d ai th ny place. meridian, an; then nes to the the same vill show

as, Jamaica,

iny place. The hourthe globe and under atitude of de of the

ma, Buenos

tude and en places.

e parallel of ridians; they heir day and

r opposite to ent sides of contrary, as h the one, it ne, it is mid-

ace, may be orizon; and on; then, if degrees it is ame number the antœci; point of the nd the same e west, will latitude, the rary. RULE.—Find the latitudes of both places, and take the difference or sum of these according as they lie on the same side, or on different sides of the equator. The difference of longitude is found in the same way, by taking the difference or sum of the longitudes according as they lie on the same side, or on opposite sides of the first meridian.

Ex.-What is the difference of latitude between London and Edinburgh, and between London and Lima; also the difference of longitude between Rome and Constantinople, and between Rome and Montreal?

PROB. VIII.— To find the distances between two places on the globe.

RULE.—Lay the quadrant of altitude over the two places, and count the number of degrees between them.

Ex.—What is the distance between Pekin and Rome, Liston and Vienna, Jamaica and Naples, Montreal and Jerusalem?

PROB. IX.— To rectify the globe for the latitude of any given place.

RULE.—Elevate the N. or S. pole, according as the place is N. or S. of the equator, till its altitude or height above the horizon be equal to the latitude of the place.

Ex.-Rectify the globe for Cairo, Botany Bay, Madras, and the Isle of Bourbon.

PROB. X.— The hour being given at one place, to find the hour at any other place at the same time.

RULE.—Bring the given place and hour to the meridian, then turn the globe till the other place comes to the meridian, and the hour immediately under the meridian is the time required (r).

⁽r) If the difference of longitude between any two places be divided by 15, the quotient will be the difference of time at the places; and, if the difference of time be multiplied by 15, the product will be the difference of longitude.

Ex.--When it is noon at Amsterdam, what is the time at Canton and Montreal? When it is 8 in the morning at Edinburgh, what is the hour at Moscow and Delhi? When it is midnight at Lisbon, what o'clock is it at Florence and Washington?

PROB. XI.— To find the sun's place in the ecliptic for any given time.

RULE.—Find the given day on the wooden horizon; directly opposite to it in the adjoining circle is the sign and degree in which the sun then is; look for the same degree in the circle of the ecliptic drawn on the globe, bring it to the meridian, and that is the sun's place at noon for the given day.

Ex.---What is the sun's place on the 14th of July, the 27th of February, the 12th August, and the 7th of January.

PROB. XII.— To find on what point of the compass the sun rises or sets on a given day at any particular place; also the amplitude of the sun.

RULE.—Rectify the globe for the latitude of the place, and find the sun's place on the ecliptic for the particular day; observe what point on the circle of *rhumbs* the sun's place in the ecliptic cuts, when brought to the eastern edge of the horizon and also when brought to the western. The number of degrees counted on the horizon, between the points of sun rising and setting and the E. or W. is his amplitude.

Ex.---On what point of the compass does the sun rise and set at Edinburgh on the 5th of May, at Rome on the 10th of September, at Mexico on the 13th January, and at Alexandria on the 8th of October ?

PROB. XIII.—To find towards which point of the compass one place is situated in respect of another.

RULE.—Bring the latter place to the zenith (s);

(s) That is, rectify the globe for the place.

fix the mericut t

Ex. Edinbu from 1

Pr rises lengt

Ru given lar da the h place the h and gives settin exclu

Ex... Canton then the

(t) In

(u) In the who acceased elves the from the from the fix mon a winter bare of (v) T foachee then it nual ty 57

e at Canton burgh, what ight at Lis-

e in the

wooden adjoining the sun circle of it to the noon for

, the 27th of

f the comay at any the sun. ade of the cliptic for on the ciriptic cuts, e horizon I'he numtween the E. or W.

se and set at f September, on the 8th of

t point of respect of

enith (s);

fix the quadrant of altitude (t) above it to the meridian; lay it along the former place, and it will cut the horizon in the point required.

Ex.—Towards which point of the compass is Jerusalem from Edinburgh, Jamaica from London, Cairo from Venice, and Madras from Montreal ?

PROB. XIV.— To find at what hour the sun rises and sets on any day in the year, also the length of the day and night.

RULE.—Rectify the globe for the latitude of the given place, bring the sun's place for the particular day, and 12 on the hour-circle to the meridian; the hours cut by the meridian, when the sun's place is brought to the eastern and western edge of the horizon, will be respectively the times of rising and setting. The hour of sun-rising, doubled, gives the length of the night; and the hour of sun-setting, doubled, gives the length of the length of the day (u), exclusive of twilight (v).

Ex....At what time does the sun rise and set at Dublin, Mccca, Canton, and St. Peterburg, on the 20th of May; and what is then the length of the day and night at those places?

(t) Instead of the quadrant of altitude a thread may be used. (u) In all places upon the equator the sun rises and sets at six he whole year round. From thence to the polar circles the days nerease as the latitude increases: so that at those circles themelves the longest day is 24 hours, and the longest night the samefrom the polar circles to the poles. the days continue to lengthen no weeks and months; so that, at the poles, the sun shines for ix months together in summer, and is absent from them six months n winter. Every part of the world, however, partakes of an equal hare of light and darkness.

(z) Twilight is caused by the atmosphere refracting the sun's bys towards the earth, and always begins when the sun aproaches within 18° of the eastern part of the horizon, and ends then it descends 18° below the western. There can be no connual twilight to any place having less than $48^\circ 32'$ of latitude. PROB. XV.— The day of the month being given, to find the sun's declination (w), and all those places where the sun will be vertical (x) on that day.

RULE.—Find the sun's place in the ecliptic for the given day, and bring it to the meridian; the degree marked over it is its declination; turn round the globe, and all the places which pass under the particular degree of declination will have the sun vertical on that day.

Ex.--- What is the sun's declination, and to what places will he be vertical on the 15th of January, the 22d of June, the 1st of August, and the 25th of December?

PROB. XVI.—A place being given in the torrid zone, to find on what two days the sun will be vertical there.

RULE.—Find the latitude of the place, turn round the globe, and observe the two points of the ecliptic that pass under the particular degree of latitude; the days on the wooden horizon, opposite to these points, will be the days required.

Ex.---On what days is the sun vertical at Lima, Madras, Cape Verde, and the isle of Bourbon ?

PROB. XVII.—At a given place and hour, to find where the sun is then vertical.

RULE.—Find the sun's declination, or the parallel to which he is vertical that day, and bring the given place and hour to the meridian; then turn the globe till 12 at noon come to the meridian; the intersection of the meridian, with the parallel of latitude to which the sun is vertical, will be the place required.

(w) The declination of the sun in its distance from the equato N. or S.

(s) That is, to find over whose heads the sun will pass that day

Ex 9 in 26th the su Paler P

ing when when

R tical and In th the v to th the u unde

Ex.it noor 30th o

1.

tation down motion sents and posed ing t 2. the s the s drag th being , and all cal (x) on

cliptic for dian; the urn round under the ve the sun

places will he ne, the 1st of

n the torrid will be ver-

place, turn oints of the r degree of on, opposite d.

Madras, Cape

nd hour, to

, or the parnd bring the ; then turn heridian ; the parallel of will be the

from the equate

Ex.... Where is the sun vertical on the 5th of April, when it is 9 in the morning at Lisbon? Where is the sun vertical on the 26th of July, when it is 8 in the evening at Montreal? Where is the sun vertical on the 3d of November, when it is midnight at Palermo?

PROB. XVIII.— The day, hour, and place, being given, to find all those places of the earth where the sun is then rising and setting, and where it is noon and midnight.

RULE.—Find the place to which the sun is vertical at the given hour, bring it to the meridian, and rectify the globe for the latitude of that place. In this position of the globe, to all the places under the western edge of the horizon the sun is rising; to those under the eastern, setting; to those under the upper half of the meridian, it is noon; to those under the lower half, midnight.

Ex.-At what place is the sun rising and setting, and where is it noon and midnight, when at Vienna it is 8 in the evening on the 30th of March?

Sector 1

II.—ON THE CELESTIAL GLOBE.

1. The Celestial Globe is an artificial representation of the heavens, on which the stars are laid down in their apparent situations. The diurnal motion of this globe is from E. to W., and represents the apparent diurnal motion of the sun, moon, and stars. In using this globe the student is supposed to be situated in the centre of it, and viewing the stars in the concave surface.

2. A Constellation is an assemblage of stars on the surface of the celestial globe, circumscribed by the outlines of some assumed figure, as a ram, a dragon, a bear, &c. This division of the stars

F

tud

dua

oft

deg

or

bra clir

E

I

ber,

sur

150

bra

cut

E

and

of a

not

deg

wil

(c meri (d from of A

I

E: tude who

3. The Zodiac, on the celestial globe, is a space which extends about 8 degrees on each side of the ecliptic, like a belt or girdle, within which the motions of all the planets are performed.*

PROBLEMS TO BE SOLVED BY THE CELESTIAL GLOBE.

PROB. I.— To find the latitude and longitude of any given star (a).

RULE.—Put the centre or 90th degree of the quadrant of altitude on the pole of the ecliptic, and let its graduated edge fall upon the star; then the degree of the quadrant over the star is its latitude, and the degree of the ecliptic cut by the quadrant is its longtitude.

Ex-What are the latitudes and longitudes of Castor (in Gemini), and Sirius or the Dog-Star (in Canis Major (b)?

PROB. II.— The longitude and latitude of a star being given, to find the star upon the globe.

* Except the newly-discovered planets or asterids, Ceres and Pallas.

(a) The latitude of the heavenly bodies is measured from the ecliptic N. and S.; their longitude is reckoned on the ecliptic from the first point of Aries, eastward round the globe. The sun; being always in the ecliptic, has no latitude.

(b) The largest and brightest stars are of the first magnitude, and become visible when the sun has sunk 12° below the horizon; those of the 2d, 3d, and 4th magnitudes are seen when it is 13, 14, and 15°; and those of the 5th and 6th when the sun has descended 18° below the horizon. All stars smaller than those of the 6th magnitude, cannot be seen by the naked eye, and are called telescopic stars.

o direct a a parti-

s a space n side of rhich the

LESTIAL

ongitude

e of the ptic, and then the latitude, quadrant

tor (in Ge

ide of a he globe.

Ceree and

ed from the soliptic from e sun; being

initude, and the horizon; ien it is 13, iun has desthose of the d are called RULE.—Place the centre of the quadrant of altitude on the pole of the ecliptic, and make its graduated edge intercept the ecliptic, in the longitude of the star; then the star will be found under the

degree of the quadrant denoting its latitude. Ex... What star is that whose longitude is 297°, and whose latitude is 30° N. 9 What star is that whose longitude is 142°, and whose latitude is 22° 30' S. ?

PROB. III. — To find the declination of the sun or stars (c).

RULE.—Bring the sun's place, or the star, to the brazen meridian, and the degree over it is its declination.

Ex.-What is the declination of the sun on the 12th of November, and of Capella (in Auriga) ?

PROB. IV.—To find the right ascension of the sun cr stars (d).

RULE.—Bring the sun's place, or the star, to the brazen meridian, and the degree of the equinoctial cut by the meridian is the right ascension.

Ex.--What is the sun's right ascension on the 23d of August, and of *Rigel* (in Orion's foot)?

PROB. V.— The right ascension and declination of a star being given, to find the star on the globe

RULE.—Bring the degree of the equinoctial denoting the right ascension to the meridian, and the degree of the meridian denoting the declination will be over the star.

(c) The declination of any heavenly body is measured upon the meridian from the equinoctial.

(d) The right ascension of any heavenly body is its distance from the first meridian (or that which passes through the first point of Aries) counted on the equinoctial.

F

Ex.-- What star it that whose right ascension is 114°, and declination 28° 30' N.? On what day is the sun's right ascension 291°, and declination 22° S.?

PROB VI.— To dispose the celestial globe so as to exhibit the actual appearance of the heavens at any given time and place.

RULE.—Rectify the globe for the latitude of the place, and set it due N. and S.; then bring the sun's place in the ecliptic, and the 12th hour of the horary, to the brazen meridian. Turn the globe towards the E. or W. according as the time is before or after noon, till the given hour on the hourcircle comes to the meridian, and the globe will represent the actual appearance of the heavens at that time and place.

Ex -- Represent the face of the heavens at Montreal for 10 o'clock in the evening of the 15th of April, at London for 4 o'clock in the morning of the 17th of January.

PROB. VII. — To find when a given star rises, sets, or culminates, at any place on a given day.

RULE.—Rectify the globe for the latitude of the place, and bring the sun's place in ecliptic, and the 12th hour of the horary, to the brazen meridian; then bring the star successively to the eastern side of the horizon, the meridian, and western side of the horizon, and the times of its rising, culminating, and setting on the hour-circle, will come to the meridian respectively.

Ex.--Required the rising, culminating, and setting, of Alde baran, (in Taurus) at Toronto on the 10th of February; and of Alphecca (in Corona Borealis) at Quebec on the 3d of November.

PROB. VIII. -- To find on what day any given star comes to the meridian, at any given hour.

RULE -Bring the given star and hour to the

me to by the day E diar (in

an un

ma the the nev

Ex Cap 1 sett pla

sta

ł

plac the dian core give men the side

(e) abov , and deascension

be so as ivens at

e of the he sun's of the he globe ne is behe houre will reeavens at

real for 10 for 4 o'clock

ar rises, en day.

ide of the c, and the neridian; stern side rn side of culminatcome to

f Alde baran, 1 ot A lphecca er. 1ny given

en hour.

meridian, then turn the globe till 12 at noon comes to the meridian, and the degree of the ecliptic cut by the meridian is the sun's place. The day on the horizon corresponding with that degree is the day required.

Ex.-On what days does *Antares* (in Scorpio) come to the meridian at 10 o'clock in the evening? On what day does *Regulas* (in Leo) come to the meridian at 2 o'clock in the morning?

PROB. IX.—To find those stars that never rise, and those that never set, at a given place, not under the equator (e).

RULE.—Rectify the globe for the latitude, and make it revolve. The stars that do not sink below the wooden horizon, are those that never set; and the stars that do not appear above it, are those that never rise in that latitude.

Ex.-What stars never rise and never set at Montreal, and the Cape of Good Hope ?

PROB. X.— To find what stars are rising, setting, or culminating, at any given time and place, and also the altitude and azimuth of any star, at the same time and place.

RULE.—Rectify the globe for the latitude of the place, and bring the sun's place in the ecliptic, and the 12th hour of the horary, to the brazen meridian. Turn the globe towards the E. or W. according as the time is before or after noon, till the given hour on the hour-circle comes to the meridian; than the stars under the eastern side of the horizon are rising, those under the western side are setting, and those under the meridian are

(e) If the place he under the equator, every star is 12 hours, above and 12 hours below the horizon.

eulminating.---If the quadrant of altitude be fixed on the zenith, and its graduated edge made to fall on a given star, the degree of the quadrant over the star will be its altitude; its azimuth is the number of degrees, counted on the horizon, from its intersection by the quadrant to the N. or S. point of the horizon.

Ex.--What stars are rising, setting, and culminating, at Montreals on the 6th of March at 11 in the evening; and at Canton on the 18th of October at 4 in the morning ?

PROB. XI.— To find the amplitude of any star, and the length of its diurnal arc, at any given place.

RULE.—Rectify the globe for the latitude of the place, and bring the given star to the eastern part of the horizon; the number of degrees between the eastern point of the horizon and the star is the amplitude required, either N. or S.—The number of hours passed over in moving the star from the eastern to the western part of the horizon is the s'ar's diurnal arc, or its continuance above the horizon of the given place.

Ex.--Required the amplitude and length of the diurnal arc of Spica Virginis (in Virgo) at Paris; and of Procyon (in Cania Minor) at Venice.

PROB. XII.—To find the apparent angular distance between two stars; that is, the arc of the great circle intercepted between them.

RULE.—Apply the quadrant of altitude to the globe, so that its graduated edge may fall on both the stars; the zero, or commencement of the graduation, being on one of them; then the degree of the quadrant over the other will be the angular distance required. gu (ir

algi

the dia mo un me

E Cap don. 50 © be fixed to fall over the number ts internt of the

Montreak ion on the

ny star, y given

le of the ern part ween the s the amumber of the easthe s'ar's horizon

n (in Canis

angular arc of the

le to the l on both he gradulegree of e angular Ex.-Required the apparent angular distance between Betelguese (in Orion) and Arietes (in Aries); and between Arcturus (in Bootes) and Pollux (in Gemini).

PROF. XIII.— The latitude of the place, the altitude of a star, and the day of the month, being given, to find the hour of the night.

RULE.—Rectify the globe for the latitude, bring the sun's place and 12 on the horary to the meridian, and fix the quadrant in the zenith; then move the globe and quadrant till the star comes under the quadrant at the given altitude, and the meridian will cut the horary at the hour required.

Ex.--At Edinburgh, on the 20th of January, when the altitude of Capella (in Auriga) is 70° , what is the hour of night? At London, on the 10th March, when the altitude of Deneb (in Leo) is. 50° , what is the hour of the night?

FINIS:

and the second s • 3 F T i s. , ' of nec Co the mu • • • ma · // The to lica in .: TH M TH TH TH . TH TH TI TI T) • TI A T

SCHOOL-BOOKS.

THE Subscribers respectfully take leave to call the attention of School Commissioners, Clergymen, Teachers, and others connected with the Education of Youth, as well as of Booksellers, and Country Merchants, to the following works lately published by them from new stereotype plates. They have been prepared with much care, are printed in clear type, on good paper of Colonial manufacture, and are strongly bound for use in the School Room. The prices of all the Books have lately been much reduced, so as to enable them to compete successfully with United States publications, and to bring them within the reach of almost every one in the Province :---

THE CANADIAN PRIMER, by Peter Parley. 13d. MANSON'S PRIMER. 3d.

THE FIRST READING BOOK, for the use of Schools 2d. THE SECOND READING BOOK, for the use of Schools. 4d. THE ENGLISH SPELLING BOOK, by William Mavor, L. L.

D., &c. 7¹/₂d. The plates from which the present edition has been prepared, were east in England last year.

- THE AMERICAN SPELLING BOOK, containing the Rudiments of the English Language, for the use of Schools, by Noah Webster, Esq. revised impression, with the latest corrections. 7¹/₂d.
- THE CANADA SPELLING BOOK, with new embellishments, by Alexander Davidson, 2nd edition, much improved. 1s.

THE ENGLISH READER, by Lindley Murray, new edition. 1s. 6d.

THE NEW TESTAMENT-School edition. 1s. 3d.

THE SHORTER CATECHISM. 11d.

THE SHORTER CATECHISM, with proofs. 24d.

A CATECHISM OF UNIVERSAL HISTORY, from the earliest ages to the year 1841, specially designed for the use of Schools in British America. 74d.

A CATECHISM OF THE HISTORY OF ENGLAND. 7]d. THE HISTORY OF ENGLAND, from its earliest period to the accession of Her present Majesty, Victoria. 7]d.

SCHOOL-BOOKS.

AN ABRIDGMENT OF ENGLISH GRAMMAR, by Lindley Murray. 74d.

THE ENGLISH GRAMMAR, by Lindley Murray. 1s. 8d.

The high price at which former editions were sold, alone prevented this standard English School Book from coming into general use. The publishers having procured stereotype plates, are enabled to offer it, strongly half-bound; at 1s. 8d., a price which, considering the style in which it is produced, and the fact of its extending to nearly 350 pages, it will be allowed is remarkably cheap.

WALKINGHAME'S SYSTEM OF ARITHMETIC, new edition. 29.

The best test of the popularity of this School Book is to be found in the extensive sale which it has met with for many years past. It is now retailed at 2s., substantially bound.

A CATECHISM OF GEOGRAPHY. 74d.

DICTIONARY OF THE ENGLISH LANGUAGE, Johnson's with Walker's pronunciations. It contains also a Vocabulary of Greek, Latin, and Scripture proper names, a list of Americanisms, Gallicisms, and other words to be avoided in speaking or writing, and Fulton and Knight's pronunciation of certain Scripture names, full bound. 2s. 6d.

In twelve months after publication, two large editions of this Dictionary were disposed of, and the present one called for.

ARMOUR & RAMSAY'S CANADIAN SCHOOL ATLAS, containing the following Maps, finely coloured :

The Western Hemisphere; The Eastern Hemisphere; Europe; Asia; Africa;

North America; South America; The United States;

British Possessions in America.

The whole substantially bound in linen, price only 6s.

The Atlas may be used along with the Catechism of Geography, or with Ewing's, Goldsmith's, Stewart's, or any other good Text Book.

THE CANADIAN SCHOOL GEOGRAPHY, by Thomas Ewing; author of Principles of Elocution, Rhetorical Exercises, the English Learner, a system of Geography and Astronomy, and a New General Atlas.

The Publishers think themselves fortunate in having been able to obtain this excellent work from the pen of the above wellknown Author and Teacher. It was expressly written, at their solicitation, for use in Canadian Schools, and is upon the same principle as that which rendered Mr. Ewing's larger work so gteat a favorite.

Ben Dilv Len Cob MC Ston Ewi Ewi Ewi MC Ewi Tho to Woo Out H Pinn D D Sim D D Dyn Abri (0 Ewi Woo Lati Mai S Dyn Dyn Stev N Virg Hun Cice Ains 12 Grad Ada Valg Lem Hur Ant

SCHOOL-BOOKS.

Bentley's Spelling Book,	Dunbar's Elements of the Greek
Dilworth's do.	Language.
Lennie's Grammar, new edit. 1 s. 6d.	Keith on the Globes.
Cobbett's English Grammar.	Playfair's Euclid.
M'Culloch's Grammar.	Morrison's Book-Keeping.
Stone's Child's Reader.	Arithmetical Tables.
Ewing's English Learner.	Ingram's Mathematics.
Ewing's Rhetorical Exercises.	Bonnycastle's Algebra.
Ewing's Principles of Elocution	Do. Mensuration.
M'Culloch's Course of Reading.	Wood's Algebra,
Ewing's Geography,	Levizac's French Grammar.
Thomson's Geography and His-	
tory of Lower Canada,	Boyer and Deletanville's French
Woodbridge's Geography.	Dictionary.
Outlines of Ancient and Modern	
History, by R. Robbins.	Meadows' Italian do.
Pinnock's Goldsmith's England.	Perrin's Fables.
Do. do. Rome.	Perrin's French and English Con-
Do. do. Greece.	versations.
Simpson's England.	Perrin's French and English Spell-
Do. Rome.	ing Book.
Do. Greece.	Porney's French Spelling Book.
Dymock's History of Greece,	Bolmar's Colloquial Phrases.
Abridgment of Modern Geography	
(Cary & Co's edition.)	Les Incas, par Marmontel,
Ewing's Atlas,	Histoire de Charles XII.
Woodbridge's Atlas.	Le Brun's Telemaque,
Latin Delectus.	Adams' Latin Grammar.
	Ruddiman's Hudiments.
Syntax.	Dunbar's Greek Lexicon.
Dymock's edition of Ovid.	Pinnock's Catechisms of Musie,
Dymock's do. Cæsar.	&c. &c. &c.
Stewart's edition of Cornelius	Oliver & Boyd's Catechisms
Nepos.	Reid's English Composition.
Virgil Delphini.	Parker's do. do.
Hunter's edition of Livy.	Blair's Lectures on Rhetoric.
Cicero.	Thomson's Ready Reckoner,
	The Bible, in Italian, French,
12mo.	Latin, and Greek.
Gradus ad Parnassum.	Greek Testaments for the use of
Adams's Roman Antiquities.	Schools.
Valpy's Greek Grammar.	
Hunter's edition of Virgil	School Copy Books, Slates, Quills,
Hunter's edition of Virgil.	Maps, Globes, &c. &c.
Anthon's Greek Grammar.	1
	C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
*** 7 * ** . * 5 * . * <u>*</u> * 5	

2 1 1 3 1 1 5 1 0

y Lindley

. 8d.

lone preto general are enahich, conof its exbly cheap.

new edi-

be found ears past.

Johnson's ocabulary of Ameriin speakciation of

s of this led for.

ATLAS,

America ;

America. 6s.

graphy, or ther good

Thomas cal Exerand As-

n able to bove welln, at their the same r work so

SCHOOL-BOOKE.

The Subscribers have also always on hand, all kinds of Paper, Account Books, Quills, Wax, Wafers, Slates, &c. &c. cheap. A liberal allowance made on wholegale orders.

> ARMOUR & RAMSAY, MONTREAL. A. H. ARMOUR & Co. HAMILTON RAMSAY, ARMOUR & Co. KINGSTON.

station of the second s

and the the transmitted in

and the second sec

