

DEPARTMENT OF THE INTERIOR

HUBERT WORK, Secretary

UNITED STATES GEOLOGICAL SURVEY

GEORGE OTIS SMITH, Director

Bulletin 689

BOUNDARIES, AREAS, GEOGRAPHIC CENTERS  
AND ALTITUDES OF THE UNITED STATES  
AND THE SEVERAL STATES

WITH A BRIEF RECORD OF IMPORTANT CHANGES IN  
THEIR TERRITORY

BY

EDWARD M. DOUGLAS



WASHINGTON

GOVERNMENT PRINTING OFFICE

1923

## FOREWORD.

---

The first edition of the record setting forth the history of the boundaries of the United States and the several States and Territories was prepared by Henry Gannett, assisted by Franklin G. Butterfield, and was published as Bulletin 13 of the United States Geological Survey in 1885. The second edition, revised and enlarged by Henry Gannett, was published as Bulletin 171 in 1900. The third edition, also revised by Henry Gannett, was published as Bulletin 226 in 1904. A reprint of this edition with minor corrections was issued in 1906.

The present bulletin is a revision and enlargement of Bulletin 226 and includes additional matter incidentally connected with boundaries.

It is the desire of the Geological Survey to make this publication a complete record, and therefore suggestions for the addition of any germane material will be welcomed.



# CONTENTS.

	Page.
How boundaries are established and changed.....	1
Boundaries of the United States and additions to its territory.....	4
Boundaries of the United States.....	4
Provisional treaty with Great Britain, 1782.....	4
Treaty with Great Britain, 1783.....	6
Treaty of London, 1794.....	6
Treaty of Ghent, 1814.....	7
Convention with Great Britain, 1818.....	11
Arbitration by King of the Netherlands.....	14
Webster-Ashburton treaty with Great Britain, 1842.....	15
Treaty with Great Britain, 1846.....	18
Treaty with Great Britain, 1908.....	19
Treaty with Great Britain, 1910.....	19
Survey and marking of the northern boundary.....	19
Treaty with Spain, 1795.....	21
The Mitchell map.....	22
Additions to the territory of the United States.....	22
Louisiana Purchase.....	22
Florida Purchase.....	28
Texas accession.....	30
First Mexican cession.....	30
Gadsden Purchase.....	32
Alaska Purchase.....	33
Hawaiian Islands.....	38
Porto Rico, Guam, and the Philippine Islands.....	39
Samoa Islands.....	41
Wake Island.....	41
Canal Zone.....	41
Virgin Islands of the United States.....	43
Guano Islands.....	44
Guantanamo and Bahia Honda, Island of Cuba.....	46
Wrangell Island.....	46
Tonga Islands.....	46
Yap Island.....	47
Extraterritorial holdings.....	47
Territorial waters.....	48
The public domain and the changes made therein.....	48
Cessions by the States.....	48
Territory northwest of Ohio River.....	53
Territory south of Ohio River.....	55
Louisiana, the areas formerly belonging to Mexico, and the Oregon region.....	56

	Page.
The boundary lines of the States-----	58
Maine-----	58
New Hampshire-----	64
Vermont-----	69
Massachusetts-----	72
Rhode Island-----	86
Connecticut-----	88
New York-----	93
New Jersey-----	101
Pennsylvania-----	103
Delaware-----	110
Maryland-----	112
District of Columbia-----	117
Virginia-----	121
West Virginia-----	127
North Carolina-----	128
South Carolina-----	134
Georgia-----	136
Florida-----	142
Alabama-----	144
Mississippi-----	146
Louisiana-----	148
Texas-----	149
Arkansas-----	157
Tennessee-----	160
Kentucky-----	164
Ohio-----	164
Indiana-----	168
Illinois-----	171
Michigan-----	172
Wisconsin-----	175
Missouri-----	177
Iowa-----	179
Minnesota-----	182
North Dakota and South Dakota-----	183
Nebraska-----	186
Kansas-----	190
Oklahoma-----	192
Montana-----	195
Wyoming-----	197
Colorado-----	199
New Mexico-----	201
Utah-----	204
Arizona-----	206
Nevada-----	207
Idaho-----	210
Washington-----	212
Oregon-----	213
California-----	215
Appendix-----	217
References-----	217
Organization of the Government-----	217

## Appendix—Continued.

	Page.
Areas of the States and outlying possessions.....	218
Lengths of the coast boundary lines of the several States and principal outlying possessions.....	220
Geographic centers of the continental United States and of the several States.....	221
Extreme and mean altitudes of the States and principal possessions.....	222
Limits of the continental United States.....	225
Index.....	227

## ILLUSTRATIONS.

	Page.
PLATE I. International boundary marks: <i>A</i> , The mark farthest north on the Lake of the Woods meridian boundary; <i>B</i> , Monument No. 167 on the Mexican boundary; <i>C</i> , A cast-iron post on the forty-ninth parallel boundary; <i>D</i> , Type of small monument on the Alaskan boundary; <i>E</i> , Type of large monument on the Alaskan boundary.....	4
II. Map of the United States, showing routes of the principal explorers from 1501 to 1844.....	22
III. The Mitchell map of the British and French dominions in North America, 1755.....	In pocket.
IV. Part of the Disturnell map of Mexico, 1847.....	In pocket.
V. Typical boundary marks, old and new: <i>A</i> , Monument No. 20 on the Mason and Dixon line; <i>B</i> , Boundary stone between the District of Columbia and Maryland; <i>C</i> , A Texas-New Mexico boundary stone; <i>D</i> , Mark at the southeast corner of New Mexico.....	106
VI. <i>A</i> , Section of a tree which has been used as a boundary mark; <i>B</i> , State Line Butte, on Utah-Arizona line.....	107
VII. Historical diagram of Missouri.....	176
FIGURE 1. Map of the United States, showing accessions of territory from 1803 to 1853.....	5
2. Map of Maine, showing claims of the United States and Great Britain.....	13
3. Map of the United States and possessions acquired since 1853.....	34
4. Map showing award of Alaska Boundary Tribunal, October 20, 1903.....	37
5. Map of the Canal Zone.....	42
6. Map of the Gore, at the northeast corner of Vermont.....	69
7. Historical diagram of New York.....	96
8. Historical diagram of Pennsylvania.....	105
9. Historical diagram of Virginia.....	123
10. Historical diagram of Georgia.....	137
11. Historical diagram of Mississippi.....	147
12. Historical diagram of Texas.....	150
13. Historical diagram of Arkansas.....	158
14. Historical diagram of Indiana.....	169
15. Historical diagram of Michigan.....	173

	Page.
FIGURE 16. Historical diagram of North and South Dakota-----	184
17. Historical diagram of Nebraska-----	188
18. Historical diagram of Oklahoma-----	193
19. Historical diagram of New Mexico-----	202
20. The marks on the tablet at the southeast corner of New Mexico-----	204
21. Historical diagram of Utah-----	205
22. Historical diagram of Washington-----	212

# BOUNDARIES, AREAS, GEOGRAPHIC CENTERS, AND ALTITUDES OF THE UNITED STATES AND THE SEVERAL STATES.

## WITH A BRIEF RECORD OF IMPORTANT CHANGES IN THEIR TERRITORY.

---

By EDWARD M. DOUGLAS.

---

### HOW BOUNDARIES ARE ESTABLISHED AND CHANGED.

Boundaries between countries are established by treaties made by the sovereign powers concerned.

A boundary between two States of the United States may be changed by agreement of the State legislatures, but this agreement must be approved by Congress. The United States Congress can not change a State boundary without the consent of the State, nor can two States by mutual agreement change their common boundary without the consent of Congress. The consent to a change in a boundary need not be granted by a special act but may be inferred from subsequent legislation by Congress.<sup>1</sup> Several times Congress has given its consent in advance for adjoining States to fix an indefinite water boundary between them.<sup>2</sup>

A boundary between a State and a Territory is fixed by joint action of Congress and the State. Boundaries between Territories are fixed

---

<sup>1</sup> U. S. Supreme Court Repts., 11 Wallace, pp. 39-59 (78 U. S. 39-59); 148 U. S. 502 et al. (Prior to 1875 the volumes of the United States Supreme Court reports were designated by the name of the official reporter and a number. Some sets of these early reports are now numbered serially also. In order of issue there are 4 reports by Dallas (serial Nos. 1-4), covering the years 1790 to 1800; 9 by Cranch (serial Nos. 5-13), 1801 to 1815; 12 by Wheaton (serial Nos. 14-25), 1816 to 1827; 16 by Peters (serial Nos. 26-41), 1828 to 1842; 24 by Howard (serial Nos. 42-65), 1843 to 1860; 2 by Black (serial Nos. 66-67), 1861 to 1862; and 23 by Wallace (serial Nos. 68-90), 1863 to 1874. Beginning with No. 91, for 1875, the volumes have been numbered serially only. References to these reports are customarily made thus: "6 Cranch 24," "10 Howard 40." The serial number of the volume is sometimes given also. Beginning with volume 91, the references are given in the form "97 U. S. 271," meaning volume 97 of the United States Supreme Court reports, p. 271, the page number always being given last.)

<sup>2</sup> 35 Stat. L. 1160-1161; 36 Stat. L. 881; see also 41 Stat. L. 1447. (References in this volume to acts of Congress, joint resolutions, and presidential proclamations, contained in the United States Statutes at Large, are given in the form here used; "36 Stat. L. 881," for example, means volume 36, p. 881.)



by congressional action alone. Disputes between States regarding boundaries must be settled by the United States Supreme Court, whose decisions are final.<sup>3</sup>

It is a well-established principle, recognized by the courts and by Congress, that a State or national boundary line as marked on the ground and accepted by the parties interested is the legal boundary for all purposes, whether it is the place designated by statute or not.

If by treaty or statute a river or smaller stream is named as a boundary between States or nations and neither the bank nor the main channel is specified, the line midway between the two banks is the actual boundary.

A treaty, statute, or cession may specify that one bank or the other is the boundary; in that case either the high-water or the low-water mark may be the line, according to the wording of the agreement. For example, the north boundary of Kentucky is the low-water mark on the north bank of the Ohio (see p. 164), as fixed by the act of cession by Virginia, but the high-water mark on the west bank of Chattahoochee River forms part of the west boundary of Georgia (see p. 142).

If a boundary line described as following the middle of a river intersects an island, it is the usual policy to give the entire island to the State or Government to which the greater part would fall. This rule was followed by the commission acting under Article VI of the treaty of Ghent in fixing the St. Lawrence River boundary, also by the Rhode Island and Massachusetts commissions.

If a navigable river or bay constitutes the boundary and no specific line is mentioned, the boundary is the middle of the main channel; or if there are several channels, the middle of the one commonly used for navigation.<sup>4</sup>

If the position of the main channel of a stream is changed by slowly acting natural causes, as the gradual erosion and deposition of alluvium, the boundary line changes with the stream;<sup>5</sup> but if the change in the channel from natural causes is sudden (by avulsion), as when the stream in flood deepens one channel and fills another or when it cuts across a bend, the boundary is not changed thereby.<sup>6</sup> Thus it may happen that a line described by statute or treaty as a river boundary later runs across dry land, where it remains fixed unless the river returns to its former channel and changes it by slow action. There are many illustrations of this rule in the United States—for example, along the Rio Grande below El Paso, along

<sup>3</sup> 148 U. S. 503.

<sup>4</sup> 147 U. S. 1; 252 U. S. 282.

<sup>5</sup> Convention with Mexico of Nov. 12, 1884, art. 1.

<sup>6</sup> 143 U. S. 359-367, 246 U. S. 158, 247 U. S. 461, etc. See Official Opinions of the Attorney General, vol. 8, pp. 175-180, for many references to this rule in international law.

Missouri River between Missouri and Kansas and between Missouri and Nebraska, and on the Mississippi between Tennessee and Arkansas.<sup>7</sup>

Changes in rivers caused by the work of man do not change boundaries.

All boundary lines should be well marked, the size and character of the marks to depend on the importance of the line. (See Pl. I.) Many State boundaries, even some run in recent years, have been very inadequately marked, blazes on trees or stones so small that they could be easily carried off having been used. Hundreds of thousands of dollars spent in litigation and in the resurvey of old lines would have been saved had the lines been properly marked when first run. Many lines have marks at intervals of 1 mile. A better rule to follow is to place the marks in such a way that from any one of them two others may be seen, all obstructing trees and brush being cleared away. Marks should also be placed at road crossings and other important points.

A State-line mark should project not less than 3 feet above ground (4 feet is better) and should be so firmly set that it can not be easily overturned nor disturbed by frost. These conditions are most easily met by constructing monuments of concrete or of metal posts set on concrete bases. Each monument should have the State names on opposite sides; it should bear also the year of survey, an identifying number, and, if practicable, a reference to the treaty or act in accordance with which the line was run.

The most recent practice in marking curved or crooked boundaries is to make them a series of connected straight lines, and for water boundaries to set suitable reference marks on shore. This plan was authorized by the British treaty of 1908 for the rivers on the Canadian boundary and was adopted in marking the Massachusetts-Rhode Island line.

The boundary marks should be protected by law and should be inspected frequently and repaired whenever necessary. Some States provide for such attention—New York at three-year intervals, Pennsylvania and Massachusetts at five-year intervals.<sup>8</sup>

There is a United States statute, approved March 4, 1909, which makes it a misdemeanor to molest any monument or witness tree on a Government survey. It provides as follows:<sup>9</sup>

<sup>7</sup> See Geological Survey maps of the Nemaha quadrangle (Mo.-Nebr.), Fort Leavenworth quadrangle (Mo.-Kans.), El Paso quadrangle (Tex.), etc. See also maps in Elimination of Bancos, treaty of 1905: Proceedings of the International Boundary Commission, United States and Mexico, 2d ser., Nos. 59 and 89, U. S. Dept. State [1912].

<sup>8</sup> See New York laws for 1887, ch. 421, and for 1892, ch. 678; Pennsylvania act approved May 4, 1889; and Massachusetts revised laws, ch. 1, sec. 4.

<sup>9</sup> Crim. Code, sec. 57, also in 35 Stat. L. 1099.



Whoever shall willfully destroy, deface, change, or remove to another place any section corner, quarter-section corner, or meander post, on any Government line of survey, or shall willfully cut down any witness tree or any tree blazed to mark the line of a Government survey, or shall willfully deface, change, or remove any monument or bench mark of any Government survey, shall be fined not more than two hundred and fifty dollars, or imprisoned not more than six months, or both.

Many references to court decisions regarding boundaries can be found in the following publications:

Clark, F. E., *A treatise on the law of surveying and boundaries*, chap. 21, Indianapolis, Bobbs-Merrill Co., 1922.

Mack, William, *Cyclopedia of law and procedure*, vol. 36, p. 842, New York, American Law Book Co., 1910.

Mack, William, and Hale, W. B., *Corpus juris, Boundaries*, vol. 9, pp. 145-298, New York, American Law Book Co., 1916.

McKinley, W. M., and Rich, B. A., *Ruling case law, Boundaries*, vol. 4, pp. 77-132, 1914, and *States*, vol. 25, pp. 373-376, Northport, N. Y., Edward Thompson Co., 1916.

Michie, T. J., *The encyclopedia of Supreme Court reports*, vol. 3, pp. 494-507, Charlottesville, Va., 1909.

Moore, J. B., *A digest of international law*: 56th Cong., 2d sess., H. Doc. 551, vol. 1, pp. 272, 273, 618, 619, 747, 1906.

Taylor, R. H., *A treatise on the law of boundaries and fences*, Albany, William Gould & Son, 1874.

*Digest of U. S. Supreme Court reports (subject "Boundaries")*, vol. 2, p. 1132, Rochester, N. Y., 1908; *Decennial supplement, 1908-1917*, p. 204.

## BOUNDARIES OF THE UNITED STATES AND ADDITIONS TO ITS TERRITORY.

### BOUNDARIES OF THE UNITED STATES.

#### PROVISIONAL TREATY WITH GREAT BRITAIN, 1782.

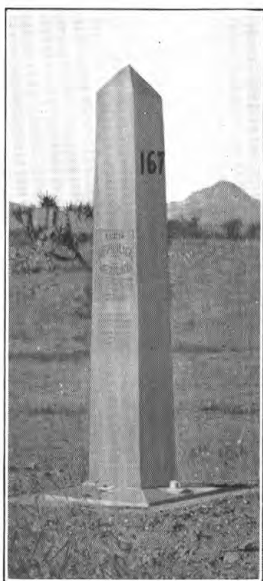
The original limits of the United States were first definitely described in the provisional treaty concluded with Great Britain November 30, 1782. The second article of that treaty defines them as follows<sup>10</sup> (see fig. 1):

ARTICLE II. From the northwest angle of Nova Scotia, viz, that angle which is formed by a line drawn due north from the source of St. Croix River to the highlands; along the highlands which divide those rivers that empty themselves into the river St. Lawrence, from those which fall into the Atlantic Ocean, to the northwesternmost head of Connecticut River; thence down along the middle of that river to the 45th degree of north latitude; from thence, by a line due west on said latitude until it strikes the river Iroquois or Cataraquy [St. Lawrence]; thence along the middle of said river into Lake Ontario, through the middle of said lake until it strikes the communication by water between that lake and Lake Erie; thence along the middle of said communica-

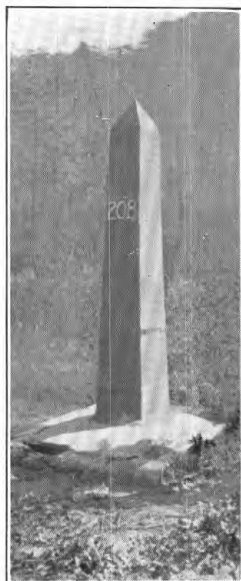
<sup>10</sup> Malloy, W. M., *Treaties, conventions [etc.], between the United States and other powers, 1776-1909*: 61st Cong., 2d sess., S. Doc. 357, vol. 1, p. 581, 1913.



A.



B.



C.



D.



E.

## INTERNATIONAL BOUNDARY MARKS.

A, The mark farthest north on the Lake of the Woods meridian boundary; B, Monument No. 167 on the Mexican boundary; C, A cast-iron post on the forty-ninth parallel boundary; D, Type of small monument on Alaska boundary; E, Type of large monument on Alaska boundary.



tion into Lake Erie, through the middle of said lake until it arrives at the water communication between that lake and Lake Huron; thence along the middle of said water communication into the Lake Huron; thence through the

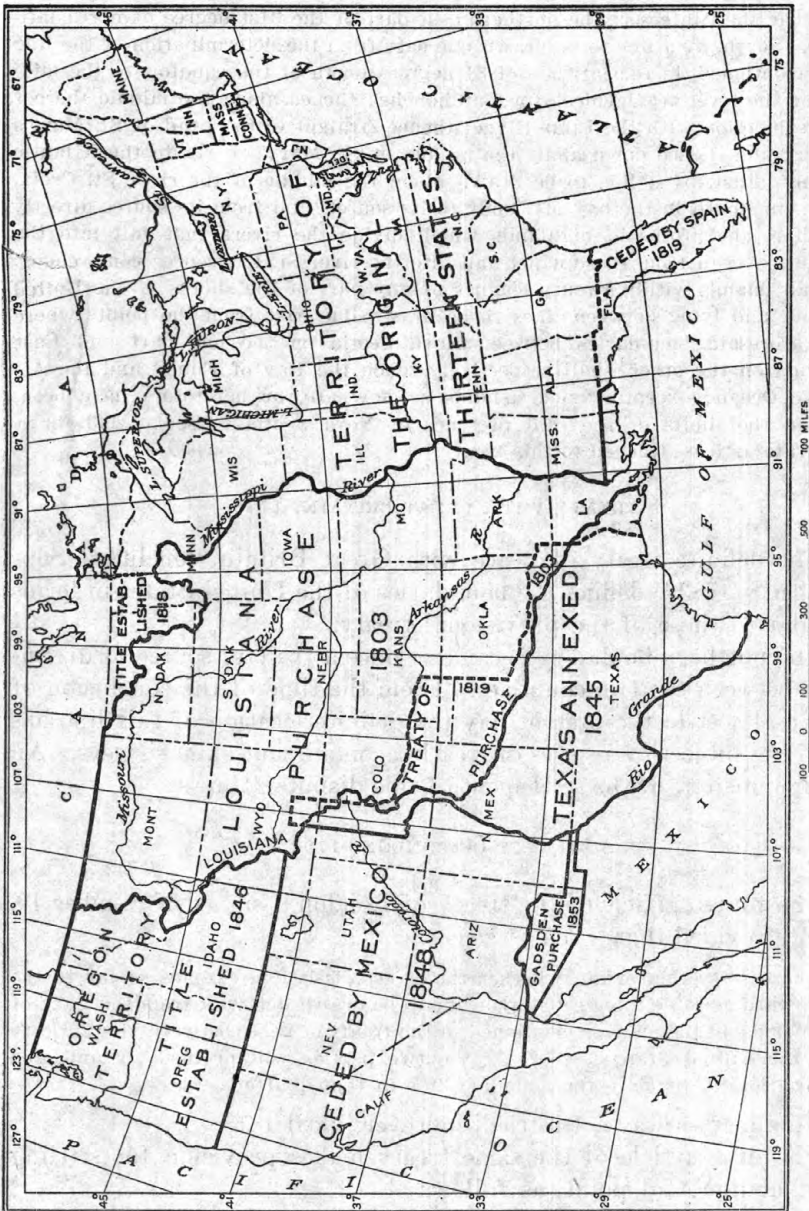


FIGURE 1.—Map of the United States showing accessions of territory from 1803 to 1853.

middle of said lake to the water communication between that lake and Lake Superior; thence through Lake Superior northward of the Isles Royal and Pheppeaux, to the Long Lake; thence through the middle of said Long Lake,

and the water communication between it and the Lake of the Woods, to the said Lake of the Woods; thence through the said lake to the most northwestern point thereof, and from thence on a due west course to the river Mississippi; thence by a line to be drawn along the middle of the said river Mississippi untill it shall intersect the northernmost part of the 31st degree of north latitude. South, by a line to be drawn due east from the determination of the line last mentioned, in the latitude of 31 degrees north of the equator, to the middle of the river Apalachicola or Catahouche; thence along the middle thereof to its junction with the Flint River; thence straight to the head of St. Mary's River; and thence down along the middle of St. Mary's River to the Atlantic Ocean. East, by a line to be drawn along the middle of the river St. Croix, from its mouth in the bay of Fundy to its source, and from its source directly north to the aforesaid highlands which divide the rivers that fall into the Atlantic Ocean from those which fall into the river St. Lawrence; comprehending all islands within twenty leagues of any part of the shores of the United States, and lying between lines to be drawn due east from the points where the aforesaid boundaries between Nova Scotia on the one part and East Florida on the other, shall respectively touch the Bay of Fundy and the Atlantic Ocean; excepting such islands as now are, or heretofore have been, within the limits of the said province of Nova Scotia. [See p. 143 for a separate article attached to this treaty.]

#### TREATY WITH GREAT BRITAIN, 1783.

The definite treaty of peace with Great Britain, concluded September 3, 1783,<sup>11</sup> defines the boundaries of the United States in terms similar to those of the provisional treaty.

The northern boundary became at once a fruitful source of dissension between the two countries. From the time of the conclusion of peace almost to the present day the definite location of this line has been the subject of a series of treaties, commissions, and surveys. An outline history of the settlement of this dispute follows:

#### TREATY OF LONDON, 1794.

The fourth article of the treaty of London,<sup>12</sup> signed November 19, 1794, provided that

Whereas it is uncertain whether the river Mississippi extends so far to the northward as to be intersected by a line to be drawn due west from the Lake of the Woods, in the manner mentioned in the treaty of peace between His Majesty and the United States: \* \* \* the two parties will proceed, by amicable negotiation, to regulate the boundary line in that quarter.

This matter was not settled, however, until 1818.

The fifth article of the same treaty makes provision for settling another doubtful point, as follows:

Whereas doubts have arisen what river was truly intended under the name of the river St. Croix, mentioned in the said treaty of peace, and forming a part

<sup>11</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 586.

<sup>12</sup> *Idem*, p. 594.



of the boundary therein described; that question shall be referred to the final decision of commissions to be appointed in the following manner, viz. \* \* \*

Here follow provisions that His Majesty and the President of the United States should each appoint a commissioner, and that these two commissioners should agree on a third, or, they failing to agree on the third, he was to be chosen by lot in their presence.

Which was the true St. Croix River had been a matter of controversy between the governments of Massachusetts and Nova Scotia since the year 1764.

The commissioners appointed under the foregoing provisions decided on the 25th of October, 1798, the river called Schoodiac and the northern branch thereof (called Cheputnaticook) to be the true River St. Croix, and that its source was at the northernmost head-spring of the northern branch aforesaid.<sup>13</sup> A monument was erected at that spot under the direction of the commissioners.

#### TREATY OF GHENT, 1814.

By the treaty of peace concluded at Ghent <sup>14</sup> December 24, 1814, it was agreed to provide for a final adjustment of the boundaries described in the treaty of 1783, which had not yet been ascertained and determined, embracing certain islands in the Bay of Fundy and the whole of the boundary line from the source of the River St. Croix to the most northwestern point of the Lake of the Woods.

By article 4 provision was made for the appointment of commissioners to settle the title to several islands in the Bay of Passamaquoddy, which is a part of the Bay of Fundy, and the island of Grand Manan in the said Bay of Fundy.

The fifth article made provision for the appointment of commissioners to settle the boundary from the source of the River St. Croix northward to the highland which divides those waters that empty into the River St. Lawrence from those which fall into the Atlantic Ocean, thence along the highlands to the northwesternmost head of Connecticut River, thence down along the middle of that river to the forty-fifth degree of north latitude, thence due west on that latitude until it strikes the River Iroquois or Cataraquy [St. Lawrence].

The sixth and seventh articles provided for commissioners to continue the line to the Lake of the Woods.

It was provided by this treaty that in case any of the boards of commissioners were unable to agree, they should make separately or jointly a report or reports to their respective governments stating the points on which they differed and the grounds on which they

<sup>13</sup> Gallatin, Albert, *The right of the United States of America to the northeastern boundary claimed by them*, p. 9, New York, 1840.

<sup>14</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 615; or 8 Stat. L. 220.

based their respective opinions. These reports were to be referred to some friendly sovereign or State for arbitration.

The first and third boards of commissioners above mentioned came to agreements, and the parts of the boundary referred to them were thus finally determined; but the commissioners appointed under the fifth article, after sitting nearly five years, could not agree on any of the matters referred to them, nor even on a general map of the country exhibiting the boundaries respectively claimed by each party. They accordingly made separate reports to their governments, as provided in the treaty.

The first of these commissions awarded Moose, Dudley, and Frederick islands to the United States and all other islands in Passamaquoddy Bay and the island of Grand Manan to Great Britain.

The following is the text of the report of the third of these commissions, which had under consideration that portion of the northern boundary between the point where the forty-fifth parallel of north latitude strikes the St. Lawrence and the point where the boundary reaches Lake Superior:

Decision of the commissioners under the sixth article of the treaty of Ghent, done at Utica, in the State of New York, 18th June, 1822.<sup>15</sup>

[We] do decide and declare that the following-described line (which is more clearly indicated on a series of maps accompanying this report, exhibiting correct surveys and delineations of all the rivers, lakes, water communications, and islands embraced by the sixth article of the treaty of Ghent, by a black line shaded on the British side with red, and on the American side with blue; and each sheet of which series of maps is identified by a certificate, subscribed by the commissioners, and by the two principal surveyors employed by them,) is the true boundary intended by the two before-mentioned treaties, that is to say:

Beginning at a stone monument, erected by Andrew Ellicott, esq., in the year of our Lord 1817, on the south bank, or shore, of the said river Iroquois or Cataraqua (now called the St. Lawrence), which monument bears south 74° 45' west, and is 1,840 yards distant from the stone church in the Indian village of St. Regis, and indicates the point at which the forty-fifth parallel of north latitude strikes the said river; thence running north 35° 45' west into the river, on a line at right angles with the southern shore, to a point 100 yards south of the opposite island, called Cornwall Island; thence turning westerly and passing around the southern and western sides of said island, keeping 100 yards distant therefrom, and following the curvatures of its shores, to a point opposite to the northwest corner, or angle, of said island; thence to and along the middle of the main river, until it approaches the eastern extremity of Barnhart's Island; thence northerly, along the channel which divides the last-mentioned island from the Canada shore, keeping 100 yards distant from the island, until it approaches Sheik's Island; thence along the middle of the strait which divides Barnhart's and Sheik's islands to the channel called the Long Sault, which separates the two last-mentioned islands from the lower Long Sault Island; thence westerly (crossing the center of the

<sup>15</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 621.



last-mentioned channel) until it approaches within 100 yards of the north shore of the Lower Sault Island; thence up the north branch of the river, keeping to the north of, and near, the Lower Sault Island, and also north of, and near, the Upper Sault (sometimes called Baxter's) Island, and south of the two small islands, marked on the map A and B, to the western extremity of the Upper Sault, or Baxter's Island; thence passing between the two islands called the Cats, to the middle of the river above; thence along the middle of the river, keeping to the north of the small islands marked C and D; and north also of Chrystler's Island and of the small island next above it, marked E, until it approaches the northeast angle of Goose Neck Island; thence along the passage which divides the last-mentioned island from the Canada shore, keeping 100 yards from the island to the upper end of the same; thence south of, and near, the two small islands called the Nut Islands; thence north of, and near, the island marked F, and also of the island called Dry or Smuggler's Island; thence passing between the islands marked G and H, to the north of the island called Isle au Rapid Platt; thence along the north side of the last-mentioned island, keeping 100 yards from the shore to the upper end thereof; thence along the middle of the river, keeping to the south of, and near, the islands called Cousson (or Tussin) and Presque Isle; thence up the river, keeping north of, and near, the several Gallop Isles numbered on the map 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10, and also of Tick, Tibbets, and Chimney islands; and south of, and near, the Gallop Isles, numbered 11, 12, and 13, and also of Duck, Drummond, and Sheep islands; thence along the middle of the river, passing north of island No. 14, south of 15, and 16, north of 17, south of 18, 19, 20, 21, 22, 23, 24, 25, and 28, and north of 26<sup>16</sup> and 27; thence along the middle of the river, north of Gull Island, and of the islands No. 29, 32, 33, 34, 35, Bluff Island, and No. 39, 44, and 45, and to the south of No. 30, 31, 36, Grenadier Island, and No. 37, 38, 40, 41, 42, 43, 46, 47, and 48, until it approaches the east end of Well's Island; thence to the north of Well's Island, and along the strait which divides it from Rowe's Island, keeping to the north of the small islands No. 51, 52, 54, 58, 59, and 61, and to the south of the small islands numbered and marked 49, 50, 53, 55, 57, 60, and X, until it approaches the northeast point of Grindstone Island; thence to the north of Grindstone Island, and keeping to the north also of the small islands No. 63, 65, 67, 68, 70, 72, 73, 74, 75, 76, 77, and 78, and to the south of No. 62, 64, 66, 69, and 71, until it approaches the southern point of Hickory Island; thence passing to the south of Hickory Island, and of the two small islands lying near its southern extremity, numbered 79 and 80; thence to the south of Grand or Long Island, keeping near its southern shore, and passing to the north of Carlton Island, until it arrives opposite to the southwestern point of said Grand Island, in Lake Ontario; thence, passing to the north of Grenadier, Fox, Stony, and the Gallop islands, in Lake Ontario, and to the south of, and near, the islands called the Ducks, to the middle of the said lake; thence westerly, along the middle of said lake, to a point opposite the mouth of the Niagara River; thence to and up the middle of the said river to the Great Falls; thence up the Falls through the point of the Horse Shoe, keeping to the west of Iris or Goat Island, and of the group of small islands at its head, and following the bends of the river so as to enter the strait between Navy and Grand islands; thence along the middle of said strait to the head of Navy Island; thence to the west and south of, and near to, Grand and Beaver islands, and to the west of Strawberry, Squaw, and Bird islands, to Lake

<sup>16</sup> The line is drawn south of No. 26 on the map filed in Washington.

Erie<sup>17</sup>; thence southerly and westerly, along the middle of Lake Erie, in a direction to enter the passage immediately south of Middle Island, being one of the easternmost of the group of islands lying in the western part of said lake; thence along the said passage, proceeding to the north of Cunningham's Island, of the three Bass Islands, and of the Western Sister, and to the south of the islands called the Hen and Chickens, and of the Eastern and Middle Sisters; thence to the middle of the mouth of the Detroit River, in a direction to enter the channel which divides Bois-Blanc and Sugar Islands; thence up the said channel to the west of Bois-Blanc Island, and to the east of Sugar, Fox, and Stony islands, until it approaches Fighting or Great Turkey Island; thence along the western side, and near the shore of said last-mentioned island to the middle of the river above the same; thence along the middle of said river, keeping to the southeast of, and near, Hog Island, and to the northwest, of and near the island Isle à la Pache, to Lake Saint Clair; thence through the middle of said lake in a direction to enter that mouth or channel of the river St. Clair, which is usually denominated the Old Ship Channel; thence along the middle of said channel, between Squirrel Island on the southeast, and Herson's Island on the northwest, to the upper end of the last-mentioned island, which is nearly opposite to Point aux Chênes, on the American shore; thence along the middle of the river St. Clair, keeping to the west of, and near, the islands called Belle Riviere Isle, and Isle aux Cerfs, to Lake Huron; thence through the middle of Lake Huron, in a direction to enter the strait or passage between Drummond's Island on the west, and the Little Manitou Island on the east; thence through the middle of the passage which divides the two last-mentioned islands; thence turning northerly and westerly, around the eastern and northern shores of Drummond's Island, and proceeding in a direction to enter the passage between the island of St. Joseph's and the American shore, passing to the north of the intermediate islands No. 61, 11, 10, 12, 9, 6, 4, and 2, and to the south of those numbered 15, 13, 5, and 1; thence up the said last-mentioned passage, keeping near to the island St. Joseph's, and passing to the north and east of Isle à la Crosse, and of the small islands numbered 16, 17, 18, 19, and 20, and to the south and west of those numbered 21, 22, and 23, until it strikes a line (drawn on the map with black ink and shaded on one side of the point of intersection with blue, and on the other side with red), passing across the river at the head of St. Joseph's Island, and at the foot of the Neebish Rapids, which line denotes the termination of the boundary directed to be run by the sixth article of the treaty of Ghent.

And the said commissioners do further decide and declare that all the islands lying in the rivers, lakes and water communications, between the before-described boundary line and the adjacent shores of Upper Canada, do, and each of them does, belong to His Britannic Majesty, and that all the islands lying in the rivers, lakes, and water communications, between the said boundary line and the adjacent shores of the United States, or their territories, do, and each of them does, belong to the United States of America, in conformity with the true intent of the second article of the said treaty of 1783, and of the sixth article of the treaty of Ghent.

In accordance with the terms of the treaty of Ghent a survey was made of the St. Lawrence and the Great Lakes, from which a map

<sup>17</sup> Horseshoe Reef, which is near the outlet of Lake Erie, was ceded to the United States Dec. 9, 1850, as a site for a lighthouse.

was drawn. This map was photolithographed and was published in 29 sheets by the United States Lighthouse Board in 1891.<sup>18</sup>

CONVENTION WITH GREAT BRITAIN, 1818.

By the second article of the convention with Great Britain, concluded October 20, 1818, the boundary line was extended westward along the forty-ninth parallel of latitude to the "Stony" (Rocky) Mountains, and beyond these mountains the treaty provided that the country should remain open to both parties. The terms of the treaty are as follows:<sup>19</sup>

ARTICLE 2. It is agreed that a line drawn from the most northwestern point of the Lake of the Woods, along the forty-ninth parallel of north latitude, or if the said point shall not be in the forty-ninth parallel of north latitude, then that a line drawn from the said point due north or south, as the case may be, until the said line shall intersect the said parallel of north latitude, and from the point of such intersection due west along and with the said parallel shall be the line of demarkation between the territories of the United States, and those of His Britannic Majesty, and that the said line shall form the northern boundary of the said territories of the United States, and the southern boundary of the territories of His Britannic Majesty, from the Lake of the Woods to the Stony Mountains.

ARTICLE 3. It is agreed, that any country that may be claimed by either party on the northwest coast of America, westward of the Stony Mountains, shall, together with its harbours, bays, and creeks, and the navigation of all rivers within the same, be free and open, for the term of ten years from the date of the signature of the present convention, to the vessels, citizens, and subjects of the two Powers: it being well understood, that this agreement is not to be construed to the prejudice of any claim, which either of the two high contracting parties may have to any part of the said country, nor shall it be taken to affect the claims of any other Power or State to any part of the said country; the only object of the high contracting parties, in that respect being to prevent disputes and differences amongst themselves.

The initial point of this boundary, which the treaty fixed as "the most northwestern point" of the Lake of the Woods, was selected in 1824 by Dr. I. L. Tiarks, astronomer, and David Thompson, surveyor, who were employed by the British Government for this purpose, and their report was accepted by the United States commissioners.

The point selected was in a swamp, where it was not feasible to establish a permanent mark, but astronomical observations were made at a reference point about 4,600 feet farther south. A pile of logs 12 feet high and 7 feet square was erected at this point, the remains of which were identified by the commissioners of 1872, who

<sup>18</sup> See reference to resurvey under treaty of 1908, p. 19.

<sup>19</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 632.

established an iron monument on the boundary a short distance from its site.<sup>20</sup>

The north mark of 1872 was recovered by the commission in 1912 and reset in concrete. It is known as boundary mark No. 925, and its position is latitude  $49^{\circ} 22' 39.6''$ , longitude  $95^{\circ} 09' 11.6''$ . (See Pl. I, A.)

Two reference marks were established in 1912, in latitude  $49^{\circ} 23' 04.5''$ , to fix a point which falls in water about half a mile north of boundary mark No. 925. There are 13 metal monuments on the north-south boundary line, of which No. 925 is the farthest north.

In 1824 negotiations were resumed between the two countries for the settlement, among other things, of the boundary west of the Rocky Mountains, but no conclusion was reached; the claim of the British Government being that the boundary line should follow the forty-ninth parallel westward to the point where this parallel strikes the great northwestern branch of Columbia River, thence down the middle of that river to the Pacific Ocean.

In 1826 negotiations were resumed, and several compromises were proposed by both parties, but without satisfactory results. After this the whole matter remained in abeyance until the special mission of Lord Ashburton to this country in 1842.

Meanwhile the unsettled questions regarding the eastern part of the north boundary again came up. The case having reached that stage at which it became necessary to refer the points of difference to a friendly sovereign or State, the two powers found it expedient to regulate the proceedings and make provisions in relation to such reference, and on September 29, 1827, concluded a convention to that end.

The respective claims of the United States and Great Britain were as follows (see fig. 2) :

*Boundary claimed by the United States.*—From the source of the river St. Croix (a point of departure mutually acknowledged) the boundary should be a due north line for about 140 miles, crossing the River St. John at about 75 miles. At about 97 miles it reaches a ridge or highland which divides tributary streams of the River St. John, which falls into the Bay of Fundy, from the waters of the River Ristigouche, which falls through the Bay des Chaleurs into the Gulf of St. Lawrence. In its further course the said due north

---

<sup>20</sup> See Report on the survey of the northern boundary of the United States; 44th Cong., 2d sess., S. Ex. Doc. 41, pp. 80–82, 1878. Final report of the International Joint Commission on the Lake of the Woods reference, p. 138, Washington, 1917. (This book contains a bibliography of publications for the Lake of the Woods region.) White, James, *Boundary disputes and treaties*, p. 886, Toronto, 1914.



line, after crossing several upper branches of the River Ristigouche, reaches, at about 140 miles, the highlands which divide the waters of

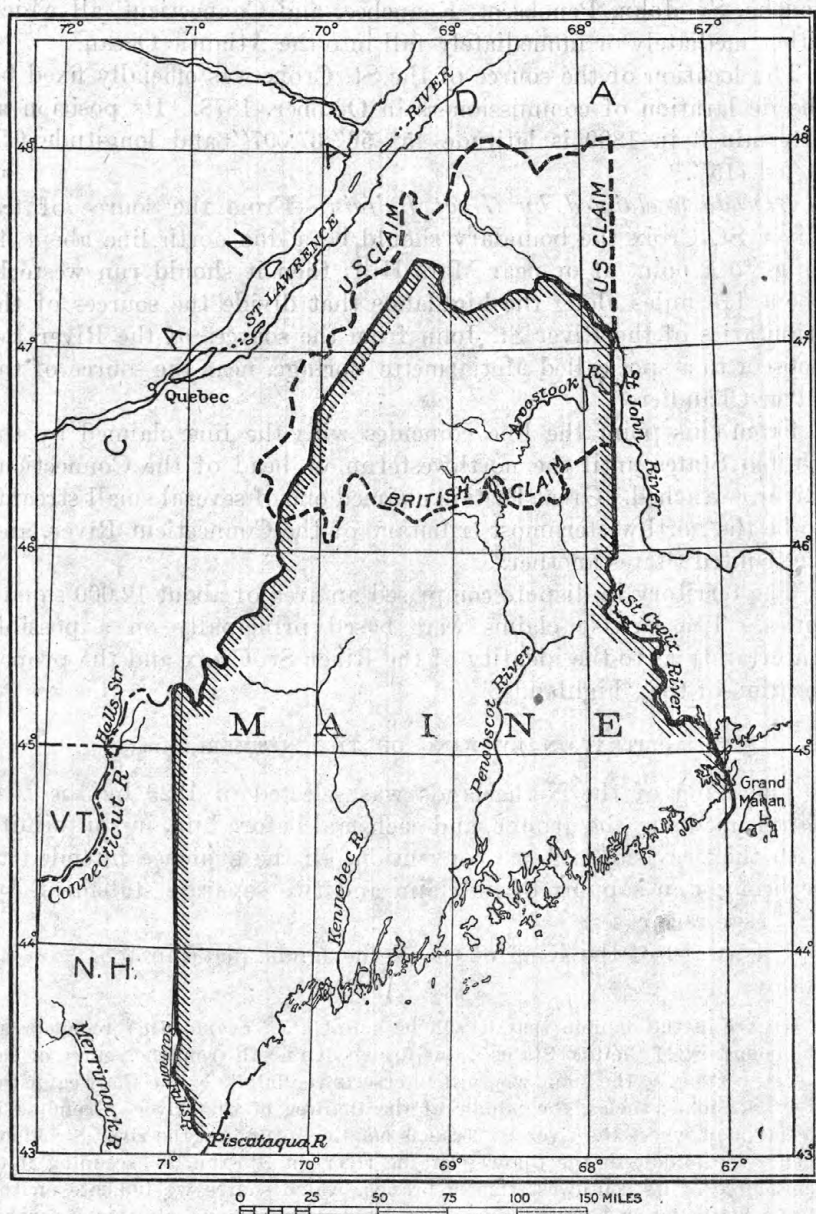


FIGURE 2.—Map of Maine showing claims of the United States and Great Britain.

the said River Ristigouche from the tributary streams of the River Metis, which falls into the River St. Lawrence.

Thence the line should run westerly and southwesterly along the highlands which divide the sources of the several rivers (from the

Metis to the St. Francis) that empty themselves into the River St. Lawrence—from the sources of the tributaries of the rivers Ristigouche, St. John, Penobscot, Kennebec, and Connecticut, all which either mediately or immediately fall into the Atlantic Ocean.

The location of the source of the St. Croix was officially fixed by the declaration of commissioners in October, 1878. Its position as determined in 1899 is latitude  $45^{\circ} 56' 37.007''$  and longitude  $67^{\circ} 46' 54.715''$ .<sup>21</sup>

*Boundary claimed by Great Britain.*—From the source of the River St. Croix the boundary should be a due north line about 40 miles to a point at or near Mars Hill; then it should run westerly about 115 miles along the highlands that divide the sources of the tributaries of the River St. John from the sources of the River Penobscot to a spot called Metjarmette Portage, near the source of the River Chaudiere.

From this point the line coincides with the line claimed by the United States until the northwesternmost head of the Connecticut River is reached. Great Britain claimed one of several small streams to be the northwesternmost tributary of the Connecticut River, and the United States another.

The territory in dispute comprised an area of about 12,000 square miles. The British claims were based principally on a possible uncertainty as to the identity of the River St. Croix and the proper location of the "highlands."

#### ARBITRATION BY KING OF THE NETHERLANDS.

The King of the Netherlands was selected in 1829 by the two Governments as the arbiter, and each laid before him, in conformity with the provisions of the convention, all the evidence intended to be brought in support of its claim and two separate statements of the respective cases.

The award of the King of the Netherlands, made in 1831, was as follows:

We are of the opinion that it will be suitable (*il conviendra*) to adopt as the boundary of the two States a line drawn due north from the source of the river St. Croix to the point where it intersects the middle of the thalweg of the river St. John; thence the middle of the thalweg of that river, ascending it to the point where the river St. Francis empties itself into the river St. John; thence the middle of the thalweg of the river Saint Francis, ascending it to the source of its southwesternmost branch, which source we indicate on the Map A by the letter X, authenticated by the signature of our minister of foreign affairs; thence in a line drawn due west to the point where it unites with the line claimed by the United States of America and delineated on the Map A; thence said line to the point at which, according to said map, it coincides with

<sup>21</sup> U. S. Coast and Geodetic Survey Special Pub. 46, p. 30.

that claimed by Great Britain, and thence the line traced on the map by the two powers to the northwesternmost source of Connecticut River.

\* \* \* \* \*

We are of the opinion that the stream situated farthest to the northwest, among these which fall into the northernmost of the three lakes, the last of which bears the name of Connecticut Lake, must be considered as the northwesternmost head of Connecticut River.

\* \* \* \* \*

We are of the opinion that it will be suitable (*il conviendra*) to proceed to fresh operations to measure the observed latitude in order to mark out the boundary from river Connecticut along the parallel of the forty-fifth degree of north latitude to the river Saint Lawrence, named in the treaties Iroquois or Cataraguay, in such a manner, however, that, in all cases, at the place called Rouse's Point the territory of the United States of America shall extend to the fort erected at that place, and shall include said fort and its kilometrical radius (*rayon kilometrique*).

However disposed the Government of the United States might have been to acquiesce in the decision of the arbiter, it had not the power to change the boundaries of a State without the consent of the State. Against that alteration the State of Maine entered a solemn protest by the resolution of January 19, 1832, and the Senate of the United States accordingly refused to give its assent to the award.

The arbitration of the King of the Netherlands having failed, fruitless negotiations ensued for a period of 11 years. Unsuccessful attempts were made to conclude an agreement preparatory to another arbitration. The subject became a matter of great irritation, collisions occurred in the contested territory, and for a time it seemed certain that the controversy would result in war between the two powers.

The Legislature of Maine placed a large sum at the disposal of the governor for the defense of the State's rights, and a bill was passed by Congress providing funds for the use of an army.

Massachusetts, being an interested party in the location of this boundary, appointed a committee to investigate the matter; its report was published March 20, 1838, as Senate Document 67. Gallatin<sup>22</sup> presents an excellent discussion of this dispute from the point of view of the United States, and White<sup>23</sup> treats of this boundary from the British side.

#### WEBSTER-ASHBURTON TREATY WITH GREAT BRITAIN, 1842.

In 1842, however, Great Britain gave proof, by the special mission of Lord Ashburton to the United States, of her desire for the preservation of peace and an amicable arrangement of the matter at

<sup>22</sup> Gallatin, Albert, *The right of the United States of America to the northeastern boundary claimed by them, with maps*, New York, 1840.

<sup>23</sup> See White, James, *Boundary disputes and treaties*, Toronto, 1914, also Maine, *Resolves of the legislature*, 1828, January session.



issue. The subject of this mission was the settlement, not only of the northeastern boundary but also of the northern boundary west of the Rocky Mountains. Regarding the latter object, Lord Ashburton's instructions gave as the ultimatum of the British Government the boundary as above claimed (p. 12), and, naturally, his mission had no result as far as this part of the boundary was concerned.

An agreement was reached, however, in regard to the northeastern boundary, which, the consent of the State of Maine having been obtained, was embodied in the treaty concluded August 9, 1842.

The following is the text of the part of this treaty relating to the boundary:<sup>24</sup>

ARTICLE I. It is hereby agreed and declared that the line of boundary shall be as follows: Beginning at the monument at the source of the river St. Croix as designated and agreed to by the Commissioners under the fifth article of the treaty of 1794, between the Governments of the United States and Great Britain; thence north, following the exploring line run and marked by the surveyors of the two Governments in the years 1817 and 1818, under the fifth article of the treaty of Ghent, to its intersection with the river St. John, and to the middle of the channel thereof; thence, up the middle of the main channel of the said river St. John, to the mouth of the river St. Francis; thence up the middle of the channel of the said river St. Francis, and of the lakes through which it flows, to the outlet of the Lake Pohenagamook; thence, south-westerly, in a straight line, to a point on the northwest branch of the river St. John, which point shall be ten miles distant from the main branch of the St. John, in a straight line, and in the nearest direction; but if the said point shall be found to be less than seven miles from the nearest point of the summit or crest of the highlands that divide those rivers which empty themselves into the river Saint Lawrence from those which fall into the river Saint John, then the said point shall be made to recede down the said northwest branch of the river St. John, to a point seven miles in a straight line from the said summit or crest; thence, in a straight line, in a course about south, eight degrees west, to the point where the parallel of latitude 46° 25' north intersects the southwest branch of the St. John's; thence, southerly, by the said branch, to the source thereof in the highlands at the Metjarmette portage; thence, down along the said highlands which divide the waters which empty themselves into the river Saint Lawrence from those which fall into the Atlantic Ocean, to the head of Hall's Stream; thence, down the middle of said stream, till the line thus run intersects the old line of boundary surveyed and marked by Valentine and Collins, previously to the year 1774, as the 45th degree of north latitude, and which has been known and understood to be the line of actual division between the States of New York and Vermont on one side, and the British province of Canada on the other; and from said point of intersection, west, along the said dividing line, as heretofore known and understood, to the Iroquois or St. Lawrence River.

ARTICLE II. It is moreover agreed, that, from the place where the joint Commissioners terminated their labors under the sixth article of the treaty of Ghent, to wit, at a point in the Neebish Channel, near Muddy Lake, the line shall run into and along the ship-channel between Saint Joseph and St. Tam-

<sup>24</sup> Malloy, W. M., op. cit., vol. I, p. 651.

many Islands, to the division of the channel at or near the head of St. Joseph's Island; thence, turning eastwardly and northwardly around the lower end of St. George's or Sugar Island, and following the middle of the channel which divides St. George's from St. Joseph's Island; thence up the east Neebish Channel, nearest to St. George's Island, through the middle of Lake George; thence, west of Jonas' Island, into St. Mary's River, to a point in the middle of that river, about one mile above St. George's or Sugar Island, so as to appropriate and assign the said island to the United States; thence, adopting the line traced on the maps by the Commissioners, thro' the river St. Mary and Lake Superior, to a point north of Ile Royale, in said lake, one hundred yards to the north and east of Ile Chapeau, which last-mentioned island lies near the northeastern point of Ile Royale, where the line marked by the Commissioners terminates; and from the last-mentioned point, southwesterly, through the middle of the sound between Ile Royale and the northwestern mainland, to the mouth of Pigeon River, and up the said river, to and through the north and south Fowl Lakes, to the lakes of the height of land between Lake Superior and the Lake of the Woods; thence, along the water communication to Lake Saisaginaga, and through that lake; thence to and through Cypress Lake, Lac du Bois Blanc, Lac la Croix, Little Vermillion Lake, and Lake Namecan and through the several smaller lakes, straits, or streams, connecting the lakes here mentioned, to that point in Lac la Pluie, or Rainy Lake, at the Chaudière Falls, from which the Commissioners traced the line to the most northwestern point of the Lake of the Woods; thence, along the said line, to the said most northwestern point, being in latitude  $49^{\circ} 23' 55''$  north, and in longitude  $95^{\circ} 14' 38''$  west from the observatory at Greenwich; thence, according to existing treaties, due south to its intersection with the 49th parallel of north latitude, and along that parallel to the Rocky Mountains. It being understood that all the water communications and all the usual portages along the line from Lake Superior to the Lake of the Woods, and also Grand Portage, from the shore of Lake Superior to the Pigeon River, as now actually used, shall be free and open to the use of the citizens and subjects of both countries.

\* \* \* \* \*

ARTICLE VII. It is further agreed that the channels in the river St. Lawrence, on both sides of the Long Sault Islands and of Barnhart Island, the channels in the river Detroit on both sides of the island Bois Blanc, and between that island and both the American and Canadian shores, and all the several channels and passages between the various islands lying near the junction of the river St. Clair with the lake of that name, shall be equally free and open to the ships, vessels, and boats of both parties.

By this treaty the United States obtained more than half of the disputed area, but nearly 1,000 square miles less than was awarded by the King of the Netherlands. The promise of reimbursement for cost of surveys and other expenses and the division of a large fund for timber cut in the disputed territory no doubt influenced Maine in agreeing to the boundary as fixed by the treaty.

The wording of the part of the treaty of 1783 relating to the northeastern boundary and its intent are so obvious that it seems strange that there should have been a dispute continuing for nearly 60 years regarding its interpretation. An English writer<sup>25</sup> in 1911 character-

<sup>25</sup> Mills, Lieut. Col. D. A., British diplomacy in Canada: Royal Colonial Inst. Jour., October, 1911, pp. 684-687.

izes the action of Great Britain as an "attempted theft" and states that "the British claim had no foundation of any sort or kind."

Ganong,<sup>26</sup> in a monograph on the boundaries of New Brunswick, after a lengthy discussion of the boundary dispute and of the treaty of 1842 states:

On the other hand, the few New Brunswickers of the present time who have examined the original sources of information have come to the conclusion that in the question of the northwest angle Maine was technically right and New Brunswick wrong, and that the Ashburton treaty took from Maine and gave to us a great territory to which we had not a technical right.

#### TREATY WITH GREAT BRITAIN, 1846.

Between 1843 and 1846 there was considerable negotiation as to the boundary west of the Rocky Mountains, resulting in the treaty of 1846, which defined the boundary as far west as the Strait of Juan de Fuca. The following is that part of the treaty which describes the boundary:<sup>27</sup>

ARTICLE I. From the point on the forty-ninth parallel of north latitude, where the boundary laid down in existing treaties and conventions between the United States and Great Britain terminates, the line of boundary between the territories of the United States and those of Her Britannic Majesty shall be continued westward along the said forty-ninth parallel of north latitude to the middle of the channel which separates the continent from Vancouver's Island; and thence southerly through the middle of the said channel, and of Fuca's Straits, to the Pacific Ocean: Provided, however, that the navigation of the whole of the said channel and straits, south of the forty-ninth parallel of north latitude, remain free and open to both parties.

ARTICLE II. From the point at which the forty-ninth parallel of north latitude shall be found to intersect the great northern branch of the Columbia River, the navigation of the said branch shall be free and open to the Hudson's Bay Company, and to all British subjects trading with the same, to the point where the said branch meets the main stream of the Columbia, and thence down the said main stream to the ocean, with free access into and through the said river or rivers, it being understood that all the usual portages along the line thus described shall, in like manner, be free and open. In navigating the said river or rivers, British subjects, with their goods and produce, shall be treated on the same footing as citizens of the United States; it being, however, always understood that nothing in this article shall be construed as preventing, or intended to prevent, the Government of the United States from making any regulations respecting the navigation of the said river or rivers not inconsistent with the present treaty.

This treaty extended the line westward from the Rocky Mountains to the Pacific along the forty-ninth parallel of latitude. This settled the northwestern boundary with the exception of the islands and passages in the Straits of Georgia and of Juan de Fuca, Eng-

<sup>26</sup> Ganong, W. F., A monograph on the evolution of the boundaries of New Brunswick: Royal Soc. Canada Proc. and Trans., 1901.

<sup>27</sup> Malloy, W. M., op. cit., vol. 1, p. 657.

land claiming that the boundary should properly run through the Rosario Strait, the most eastern passage, whereas the United States claimed that it should follow the Strait of Haro.

This matter was finally settled by a reference to the Emperor of Germany as an arbitrator, who decided it in favor of the United States on October 21, 1872.<sup>28</sup>

#### TREATY WITH GREAT BRITAIN, 1908.

The treaty with Great Britain concluded April 11, 1908, described the boundary between the United States and Canada in eight sections and provided for the appointment of a joint commission to recover or restore previously established marks and to place new marks on unmarked sections.<sup>29</sup>

#### TREATY WITH GREAT BRITAIN, 1910.<sup>30</sup>

In order to remove a slight uncertainty concerning the boundary line in Passamaquoddy Bay a treaty with Great Britain was concluded on May 21, 1910, which laid down the position of the line by courses and distances, starting from a point between Treat Island and Campobello Island, previously fixed by range lines, and running thence in a general southerly direction to the middle of Grand Manan Channel. Popes Folly Island and the lighthouse between Woodward Point and Cranberry Point were left within United States territory.

#### SURVEY AND MARKING OF THE NORTHERN BOUNDARY.<sup>30a</sup>

Before 1908 no permanent marks had ever been erected for the northern water boundary, running through Passamaquoddy Bay, St. Croix River, St. Lawrence River, the Great Lakes, and from the mouth of Pigeon River to the northwesternmost point of the Lake of the Woods. The land boundary from the Lake of the Woods west to the Pacific had never been adequately marked, and the forty-ninth parallel in the Strait of Georgia was without reference marks. Up to November 1, 1922, the markings of the northern boundary had been completed or provided for as follows:

The section of the boundary east of the mouth of Pigeon River comprises 23.5 miles of water boundary running through Passamaquoddy Bay, 128 miles through St. Croix River from its mouth to its source, 488 miles of land and 177 miles of water boundary from the source of St. Croix River to St. Lawrence River, and 1,289 miles of

<sup>28</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 725.

<sup>29</sup> *Idem*, p. 815.

<sup>30</sup> Charles, Garfield, *Treaties, conventions, etc., between the United States and other powers*: 62d Cong., 3d sess., S. Doc. 1063, p. 49.

<sup>30a</sup> See report prepared for the Department of State by C. P. Anderson on the northern boundary of the United States with particular reference to the portions thereof which require more complete definition and marking, Washington, 1906.



water boundary through St. Lawrence River, the Great Lakes and connecting waters to the mouth of Pigeon River. The land portion is marked by iron or stone monuments set in concrete foundations, or by concrete monuments; the water portion is defined by courses and distances between turning points (angles), and these points are referred to marks of metal or concrete on the banks and shores.

The full report of the resurvey and marking of St. Lawrence River and the Great Lakes has been published by the Canadian Government.<sup>31</sup> It gives extracts from treaties, instructions to the commissioners, courses and distances between marks, and geographic positions and azimuths.

From the mouth of Pigeon River to the northwesternmost point of the Lake of the Woods, 426 miles, the water boundary will be defined by courses and distances between turning points on the boundary line, and these will be referred to metal reference marks set in concrete or solid rock on the shores of the lakes and the banks of the streams.

From the northwesternmost point of the Lake of the Woods to the summit of the Rocky Mountains the boundary is composed of a north-south section, 26.6 miles long, which meets the forty-ninth parallel at a point in the Lake of the Woods, and an east-west section, 860 miles long, approximately on the forty-ninth astronomic parallel. This part of the boundary was first located in the years 1872 to 1876 and was marked by iron pillars, rock cairns, or earth mounds set at intervals of 1 to 19 miles.<sup>32</sup> The cairns and earth mounds have now been replaced by iron monuments weighing about 400 pounds each (see Pl. I, *A* and *C*), or, in the mountains, by aluminum-bronze monuments set on concrete foundations and projecting 5 feet above the surface. Additional monuments have been so placed that no interval between two consecutive marks exceeds  $2\frac{1}{2}$  miles. This resurvey was completed in 1913, and 39 of the 40 maps covering the line have been published.

From the summit of the Rocky Mountains to the Strait of Georgia 410 miles of land line on the forty-ninth astronomic parallel was located by a joint commission between 1859 and 1862 and was marked by stone or iron pillars, rock piles, or mounds of earth at intervals ranging from a fraction of a mile to 25 miles.<sup>33</sup>

<sup>31</sup> Report of the International Waterways Commission upon the international boundary between the Dominion of Canada and the United States through St. Lawrence River and the Great Lakes, 286 pp., 29 maps, Ottawa, 1916.

<sup>32</sup> For details regarding the survey see 44th Cong., 2d sess., S. Ex. Doc. 41.

<sup>33</sup> See Baker, Marcus, Survey of the northwestern boundary of the United States, 1857-1861: U. S. Geol. Survey Bull. 174, 1900. See also a history of the survey by Otto Klotz in *Am. Geog. Review*, May, 1917, pp. 382-387. A report by the British Commissioner with descriptions and longitudes of marks for this survey is given in U. S. Foreign Office correspondence, 1865-1871, vol. 811, America, p. 1468.

A retracement of this line was completed in 1907. The new marks consist of aluminum-bronze pillars 5 feet high, weighing about 250 pounds each, set in concrete bases at intervals not exceeding 4 miles. The maps of this section of the boundary, 19 sheets, have been published.

Along the forty-ninth parallel in the Strait of Georgia, and through the straits of Haro and Juan de Fuca to the Pacific Ocean, 150 miles, the boundary is defined by courses and distances between turning points, which are referred to reference marks consisting of concrete monuments and lighthouses on the shores. The report on this section of the boundary was published in 1921.<sup>34</sup> Final reports on other sections of the northern boundary, with maps, are now (1922) in preparation.

The total length of the boundary line between the United States and Canada (not including Alaska) is 3,980 miles, of which 1,785 miles is on land and 2,195 through water.

Considerable information regarding the northern boundary of the United States may be found in a recent article by John W. Davis.<sup>35</sup>

#### TREATY WITH SPAIN, 1795.

The southern boundary of the United States was described in definite terms by the treaties with Great Britain of 1782 and 1783 (see pp. 4-6), but its location was not accepted by Spain and was in dispute with that country until settled by the treaty concluded October 27, 1795,<sup>36</sup> wherein it was agreed that

The southern boundary of the United States, which divides their territory from the Spanish colonies of east and west Florida, shall be designated by a line beginning on the River Mississippi, at the northernmost part of the thirty-first degree of latitude north of the Equator, which from thence shall be drawn due east to the middle of the River Apalachicola, or Catahouche, thence along the middle thereof to its junction with the Flint; thence straight to the head of St. Mary's River, and thence down the middle thereof to the Atlantic Ocean.

Article 4 of this treaty described the western boundary, which separated the "Spanish colony of Louisiana" from the United States, as being

in the middle of the channel or bed of the River Mississippi, from the northern boundary of the said States to the completion of the thirty-first degree of latitude north of the Equator.

<sup>34</sup> Reestablishment of the boundary between the United States and Canada, forty-ninth parallel to the Pacific Ocean, 95 pp., 1 map, 1921.

<sup>35</sup> The unguarded boundary: *Geog. Review*, October, 1922, pp. 585-601.

<sup>36</sup> Malloy, W. M., *op. cit.*, vol. 2, p. 1640.

## THE MITCHELL MAP.

Plate III (in pocket) is a half-scale reproduction of a copy of a second (or later) edition of the Mitchell map of the British and French dominions in North America, as printed in 1774 or 1775, now in the Library of Congress. Minor corrections and additions were made for the second edition, but the certificate and publication date (February 13, 1755) were unchanged. The principal addition was the text in the ocean space at the left of the title.

The Mitchell map (probably the second edition) was used by the framers of the peace treaties of 1782 and 1783. John Adams wrote in 1784 regarding it:

We had before us, through the whole negotiations, a variety of maps; but it was Mitchell's map upon which was marked out the whole boundary lines of the United States.

The particular copy thus referred to, on which the boundary lines were indicated by the commissioners by red lines, has been lost.

The copy of the second edition of the Mitchell map used by John Jay, one of the American commissioners, on which a red line has been drawn to indicate the boundary as proposed by Oswald, is now in the library of the New York Historical Society. In the British Museum there is a copy of the Mitchell map which belonged to King George III. This also has on it the red Oswald line. The Library of Congress has a number of copies of different editions, including a French edition. The Geological Survey has a copy of the second edition. There are slight differences between the second and other editions, but all have the same publication date and give no clue to the years in which they were actually printed.

Although there are many gross errors in this map, in 1783 it was the best available.

## ADDITIONS TO THE TERRITORY OF THE UNITED STATES.

## LOUISIANA PURCHASE.

The entire basin of the Mississippi and its tributaries, with much of the coast region of the Gulf of Mexico, which was subsequently known as the Territory of Louisiana, was originally claimed by La Salle in 1682 for France by virtue of discovery and occupation. (See Pl. II for routes followed by La Salle and others between the Great Lakes and the Gulf of Mexico; also see Pl. VII and fig. 1.) The area on the Gulf extended eastward to the mouth of the "River of Palms," which is the river in Florida now called the Manatee, or else a smaller stream that empties into the Gulf at or near Tampa Bay.<sup>37</sup>

<sup>37</sup> For a translation of La Salle's proclamation see Sparks, Jared, *Library of American biography*, vol. 1, pp. 200-202, Boston, 1844.







In 1712 France made a grant to Antoine de Crozat of the exclusive right to the trade of this region. As this grant gives the limits of this vast region as they were understood by France, a portion of it is here introduced.

We have by these presents signed with our hand, authorized, and do authorize the said Sieur Crozat to carry on exclusively the trade in all the territories by us possessed, and bounded by New Mexico and by those of the English in Carolina, all the establishments, ports, harbors, rivers, and especially the port and harbor of Dauphin Island, formerly called Massacre Island, the river St. Louis, formerly called the Mississippi, from the seashore to the Illinois, together with the river St. Philip, formerly called the Missouri River, and the St. Jerome, formerly called the Wabash [the Ohio], with all the countries, territories, lakes in the land, and the rivers emptying directly or indirectly into that part of the river St. Louis. All the said territories, countries, rivers, streams, and islands we will to be and remain comprised under the name of the government of Louisiana, which shall be dependent on the General Government of New France and remain subordinate to it, and we will, moreover, that all the territories which we possess on this side of the Illinois be united, as far as need be, to the General Government of New France and form a part thereof, reserving to ourself, nevertheless, to increase, if we judge proper, the extent of the government of the said country of Louisiana.

From this it appears that Louisiana was regarded by France as comprising the drainage basin of the Mississippi at least as far north as the mouth of the Illinois, with those of all its branches which enter it below this point, including the Missouri, but excluding that portion in the southwest claimed by Spain. It is, moreover, certain that the area now comprised in Washington, Oregon, and Idaho was not included.

Crozat surrendered this grant in 1717.

On November 3, 1762, France by a secret treaty ceded this region to Spain, defining it only as the Province of Louisiana, but Spain did not take possession until several years later. By the treaty of peace of 1763 between Great Britain, France, and Spain, the western boundary of the British possessions in the New World was placed in the center of Mississippi River, thus reducing the area of Louisiana by the portion east of the river. By these two treaties France disposed of her possessions in North America, dividing them between Great Britain and Spain. The limit set between the British and Spanish possessions was given as the Mississippi, the Iberville, and Lakes Maurepas and Pontchartrain. (See fig. 11.)

Iberville River is now called Bayou Manchac. In the early days there was a connected waterway (now closed) through this river between the Mississippi and the Gulf of Mexico. The island thus formed was called the island of New Orleans.

Great Britain then subdivided her newly acquired province, Florida. The area south of latitude  $31^{\circ}$  (changed in 1764 to a parallel through the mouth of Yazoo River,  $32^{\circ} 28'$  approximately) and west of

Apalachicola River she called West Florida; the region east thereof and south of the present north boundary of Florida received the name East Florida. For the next 16 years these boundaries and names remained undisturbed. In 1783, by the treaty of peace with the United States at the close of the Revolution, Great Britain reduced the area of West Florida by the cession of that portion north of the thirty-first parallel to the United States. In the same year she gave East Florida and what remained of West Florida to Spain, and in Spain's possession they remained until they were ceded to the United States in 1819.<sup>38</sup>

Meantime, in 1800, by the secret treaty of San Ildefonso, Spain promised to return Louisiana to France. In the language of the treaty, she pledged herself to return to France the

Province of Louisiana with the same extent it now has in the hands of Spain, and that it had when France possessed it, and such as it should be after the treaty subsequently entered into between Spain and other States.

Immediately after this transfer became known (on November 30, 1802), measures were set on foot by President Jefferson for obtaining free access to the sea by way of Mississippi River. Circumstances favored this negotiation. Bonaparte was at that time in almost daily expectation of a declaration of war by Great Britain, in which case the first act of the latter would be to seize the mouth of the Mississippi, and with it the Province of Louisiana. Under these circumstances Bonaparte offered to sell the Province to the United States, and the offer was promptly accepted. The consideration named was 60,000,000 francs and the assumption by the United States of the "French spoliation claims," which were estimated to amount to \$3,750,000. It was strongly urged by the opponents of this purchase that it was contrary to the Constitution of the United States.<sup>38a</sup>

The treaty of cession,<sup>39</sup> which bears date April 30, 1803, describes the territory only as being the same as ceded by Spain to France by the treaty of San Ildefonso, from which the description given was quoted. From this it appears that the territory sold comprised that part of the drainage basin of the Mississippi which lies west of the course of the river, except the parts that were then held by Spain. (See fig. 1.) The want of precise definition of limits in the treaty was not objected to by the American commissioners, as they probably foresaw that this very indefiniteness might prove of service to the United States in future negotiations with other powers. In fact, the claim of the United States to the area now comprised in Oregon, Washington, and Idaho in the negotiations with Great Britain regarding the northwestern boundary was ostensibly based not only

<sup>38</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 506.

<sup>38a</sup> Brown, E. S., *The constitutional history of the Louisiana Purchase: California Univ. Pub. History*, vol. 10, Berkeley, 1920.

<sup>39</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 508.

upon prior occupation and upon purchase from Spain, but also upon the alleged fact that this area formed part of the Louisiana Purchase. That this claim was baseless is shown not only by what has been already detailed regarding the limits of the purchase but also by the direct testimony of the French plenipotentiary, M. Barbé Marbois. Some 20 years after the purchase he published a book on Louisiana, in which he detailed at some length the negotiations that preceded the purchase and, referring to this question, said: "The shores of the western ocean were certainly not comprised in the cession, but already the United States are established there."

There is also in Marbois's book a map of the country between the Mississippi and the Pacific, on which the western extent of Louisiana is indicated by a line drawn on the one hundred and tenth meridian, which is not far from the western limit of the drainage basin of the Mississippi in Wyoming and Montana. That part of the country now comprised in Oregon, Washington, and Idaho, which, it has been claimed, formed part of the purchase, bears the following legend: "Territories and countries occupied by the United States, following the treaty of cession of Louisiana."

From this it appears that although the United States certainly did not purchase Oregon as a part of Louisiana, it is no less certain that that great area west of the Rocky Mountains fell into its hands as a direct consequence of the Louisiana Purchase.

The treaty of 1783 with Great Britain describes the northern boundary of the United States in part as follows: From the north-westernmost point of the Lake of the Woods "on a due west course to the River Mississippi." The fact that such a line could not intersect the Mississippi proper at any point (see Pl. VII) gave rise to many and serious disputes, which were not settled until after the date of the Louisiana Purchase. This clause of the treaty has been understood by some geographers as placing the United States and British boundary line on the Lake of the Woods parallel for some 400 miles west from the lake to the point where it intersects the Missouri-Mississippi drainage basin, which in 1783 belonged to Spain, thus including the southern part of the basin of Red River as part of the United States territory.

Other geographers who have given the subject careful study would limit the possessions of the United States in the northwest as defined by the treaty of 1783 by Mississippi River and a line due north from its source (Lake Itasca)<sup>40</sup> to an intersection with the Lake of the Woods parallel. (See p. 27.)

---

<sup>40</sup> See Baker, J. H., *Minnesota Hist. Coll.*, vol. 6, pt. 1, 1887; also Brower, J. V., *idem*, vol. 7, 1893. Lake Itasca is generally referred to as the source of the Mississippi, but there is a creek about 6 miles in length which empties into the southwestern part of the lake, whose source is more than 90 feet above the lake.

Still others consider the Red River basin south of the forty-ninth parallel to be a part of the Louisiana Purchase. The Red River basin was not a part of La Salle's original claim, but it appears to have been actually occupied by the French earlier than 1762. In the *Encyclopaedia Britannica* (11th ed., vol. 5, pp. 157-158) it is stated that La Vérendrye, a French Canadian, was the first white man of record to explore the country from the site of Winnipeg westward to the Rocky Mountains. (See Pl. II.) ●

The treaty of 1763 between Great Britain, France, and Spain limited Great Britain's jurisdiction on the northwest by Mississippi River, as will be seen from the following quotation from Article VII:

In order to re-establish peace on solid and durable foundations, and to remove for ever all subject of dispute with regard to the limits of the British and French territories on the continent of America; it is agreed, that, for the future, the confines between the dominions of his Britannic Majesty, and those of his most Christian Majesty, in that part of the world, shall be fixed irrevocably by a line drawn along the middle of the River Mississippi, from its source to the River Iberville.

When this treaty was made Great Britain apparently knew nothing of the secret treaty of the previous year whereby France had ceded the Louisiana territory to Spain. It is evident, however, that Great Britain intended to relinquish all claim to jurisdiction over the area west of the Mississippi. In 1763, and for many years thereafter, the Mississippi was believed to rise considerably north of its actual known source. On the Mitchell map (Pl. III, in pocket) the source was said to be at about the "50th degree of latitude." Even if the area assigned to France did not extend as far north as latitude 50° it apparently included all that part of the Red River drainage basin west of the actual source of the Mississippi.

The British act of 1774 extended the Province of Quebec to include the area west of Pennsylvania north of the Ohio and east of the Mississippi. The boundaries were more definitely described in the commission issued to the governor in December of the same year, in part as follows:

and along the bank of the said river [Ohio] westward to the banks of the Mississippi, and northward along the eastern bank of the said river to the southern boundary of the territory granted to the Merchant Adventurers of England trading to Hudson's Bay.

The Canadian General Government and the Province of Ontario have made extensive researches concerning the western boundary of Ontario, and the reports give an excellent historical review of the French, Spanish, and English claims to the country about the Lake of the Woods, including the Red River and Mississippi River drainage basins, from the first exploration down to 1818 and later. The



reports fill several large volumes, and among them may be mentioned "Report of the select committee on the boundaries between the Province of Ontario and the unorganized territories of the Dominion," Ottawa, 1880, and "Correspondence, papers, and documents \* \* \* relating to the northerly and westerly boundaries of Ontario," Toronto, 1882. A careful examination of these and other official documents fails to disclose any statement of claims by Great Britain to the area west of the Mississippi east of the Rocky Mountains and south of the Lake of the Woods parallel.

The commissioner for Ontario in reporting to the lieutenant governor of that Province with reference to the boundary of Ontario stated (p. 340 of the 1880 report) that

In framing the treaty of Paris a few years later [1782] the Imperial Government recognized the Mississippi as an existing territorial boundary. All the country east of that river and south of a line drawn through the middle of the Great Lakes to the most northwestern point of the Lake of the Woods was surrendered to the United States. All the country west of the Mississippi, extending south to 31° of north latitude and east to the Atlantic Ocean, was left to its former owners [Spain].

On the Faden map of 1783<sup>41</sup> a heavy green line is drawn from the head of Mississippi River to the Lake of the Woods. The boundary of the Hudson Bay territory, as fixed by the treaty of Utrecht, is indicated by a red line running east and west from the Lake of the Woods. West of the green line, west of Mississippi River and south of the red line, the area is marked "Louisiana," and in its northern part a river running northward is marked "Mississippi or Red River." If the evidence of this map may be accepted, the Red River area south of the Lake of the Woods parallel was considered a part of Louisiana.

In the printed "Observations" that accompany this map are the following:

The River Mississippi is known about 60 miles above the Falls of St. Anthony but is not navigable; its source is supposed by all travellers to be in about 46° N., therefore the line to be drawn W. from the Lake of the Woods till it strikes Mississippi will probably run on a parallel 3 degrees or 180 miles above its source.

But this boundary line, otherwise insignificant, seems to have been extended to the Lake of the Woods in 49° N. to approximate the United States to the boundary of the Hudson's Bay Company, in 49° N.

A south line should have been drawn from the Lake of the Woods to strike the Mississippi, as the west line beginning at 180 miles distance, if extended, would encrease its distance from that river.

<sup>41</sup> The United States of North America, with British and Spanish territories according to the treaty; engraved by William Faden, 1783. Faden was in June, 1783, appointed geographer to the King.

It seems probable that Congress considered the Red River basin (see Pl. VII) as far north as the Lake of the Woods to be a part of the Louisiana Purchase, but no specific reference was made to it in any statute prior to 1834. This question is now a matter of historical interest only, for the boundary line was definitely fixed by the British treaty of 1818 (p. 11).

There are many who believe that the Louisiana Purchase extended even farther north than the forty-ninth parallel and included the entire drainage basin of Missouri River. This uncertainty also was settled by the treaty of 1818. James White,<sup>42</sup> after an extended review of this question, states: "The true northern boundary of Louisiana was the watershed of the Mississippi and Missouri rivers."

It has often been said that by the treaty of Utrecht of 1713 the forty-ninth parallel was made the boundary line between Great Britain and the French Province of Louisiana, but a careful reading of the treaty fails to disclose any ground for this statement. There are several printed copies of the treaty of Utrecht in the Library of Congress.<sup>43</sup>

It is doubtless true that during the negotiations which followed the signing of the treaty the British commission endeavored to have the forty-ninth parallel fixed as the boundary and that the French commission contended for a boundary a degree or more farther north, but the commissioners failed to agree, and no latitude was mentioned in the treaty. Article X of this treaty provided for the appointment of "commissaries" to fix a boundary line between the Hudson Bay territory and the Louisiana territory. The "commissaries" were probably appointed, but no final decision resulted from their labors.<sup>44</sup>

The western boundary of the Louisiana Purchase is the western boundary of the Mississippi drainage basin as claimed by La Salle.

However the northern and northeastern boundaries of the Louisiana Purchase may be considered, there is no doubt that they included the drainage basin of the Missouri south of the forty-ninth parallel and the western drainage basin of the Mississippi from its source to the Gulf (Pl. I).

#### FLORIDA PURCHASE.

The second addition to the territory of the United States consisted of the Floridas, purchased from Spain in 1819, for \$5,000,000. From the date of the Louisiana Purchase, in 1803, the territory bounded

<sup>42</sup> Canada and its Provinces, p. 842, Toronto, 1914.

<sup>43</sup> See also Freschot, C., *The complete history of the treaty of Utrecht* [etc.], 2 vols., London, A. Roper and S. Butler, 1715.

<sup>44</sup> See Hermann, Binger, *The Louisiana Purchase and our title west of the Rocky Mountains* [etc.], pp. 55-59, Washington, 1900; also Bond, Frank, *Historical sketch of Louisiana and the Louisiana Purchase*, Washington, 1912.

by Mississippi River on the west, the Perdido on the east, the parallel of  $31^{\circ}$  on the north, and the Gulf on the south had been in dispute between the two countries. During at least part of this time it had been practically in the possession of the United States.

The clause quoted from the treaty of San Ildefonso (p. 24) was interpreted by Jefferson and others in this country to mean the inclusion of West Florida. Their reasoning was this: In 1800 Spain owned West Florida; West Florida was once a part of Louisiana; in 1800 Spain ceded Louisiana to France; she therefore ceded West Florida with it.

Spain, however, held that this was merely a treaty of recession, by which she gave back to France what France had given to her in 1762. Since in 1762 she did not own West Florida, she could not, therefore, have ceded it to France.

As to this matter, Marbois, the French plenipotentiary, was very positive in stating that West Florida formed no part of the Louisiana Purchase, and that the southeastern boundary of that purchase was Iberville River and Lakes Maurepas and Pontchartrain. (See fig. 11.)

Immediately after the Louisiana Purchase the claim was made by the United States that it included most of West Florida and part of the Texas coast, but this claim was not entertained by Spain. In 1810 a revolution was effected in that part of West Florida lying west of Pearl River, and application was made for annexation to the United States. The governor of Louisiana, under instructions from Washington, at once took possession, but immediately a counter revolution was organized against him, which was put down by force of arms, and in 1812 this part of West Florida was annexed to the Territory of Louisiana. Meantime the insurrection spread eastward in West Florida; and although put down by Spanish authorities, the movement received the sympathy of the United States, which passed a secret act, approved March 3, 1811, authorizing the President, under certain specified contingencies, to use force in taking possession of the Floridas. In 1812 that portion of West Florida lying between Perdido and Pearl rivers was annexed to the Territory of Mississippi.

This purchase settled these conflicting claims.

The following is the clause in the treaty of February 22, 1819, with Spain which defines the cession of the Floridas: <sup>45</sup>

ARTICLE 2. His Catholic Majesty cedes to the United States, in full property and sovereignty, all the territories which belong to him, situated to the eastward of the Mississippi, known by the name of East and West Florida. The adjacent islands dependent upon said province, etc.

<sup>45</sup> Malloy, W. M., op. cit., vol. 2, p. 1652.

The third article in this treaty defines the boundary between the United States and the Spanish possessions in the Southwest as follows:

ARTICLE 3. The boundary line between the two countries, west of the Mississippi, shall begin on the Gulph of Mexico, at the mouth of the river Sabine, in the sea, continuing north, along the western bank of that river, to the 32nd degree of latitude; thence, by a line due north to the degree of latitude where it strikes the Rio Roxo of Nachitoches, or Red River; then following the course of th Rio Roxo to the degree of longitude 100 west from London, and 23 from Washington; then, crossing the said Red River and running thence, by a line due north, to the river Arkansas; thence, following the course of the southern bank of the Arkansas, to its source in latitude 42 north; and thence, by that parallel of latitude to the South Sea. The whole being as laid down in Melish's map of the United States, published at Philadelphia, improved to the 1st of January, 1918. But if the source of the Arkansas River shall be found to fall north or south of latitude 42, then the line shall run from the said source due south or north, as the case may be, till it meets the said parallel of latitude 42, and thence, along the said parallel, to the South Sea: All the islands in the Sabine, and the said Red and Arkansas Rivers, throughout the course thus described, to belong to the United States; but the use of the waters, and the navigation of the Sabine to the sea, and of the said rivers Roxo and Arkansas, throughout the extent of the said boundary, on their respective banks, shall be common to the respective inhabitants of both nations. \* \* \*

#### TEXAS ACCESSION.

The next acquisition of territory was that of the Republic of Texas, which was admitted as a State on December 29, 1845. The area which Texas brought into the Union was limited as follows, as defined by the Republic of Texas, December 19, 1836 (see fig. 12) :

Beginning at the mouth of the Sabine River and running west along the Gulf of Mexico three leagues from land to the mouth of the Rio Grande, thence up the principal stream of that river to its source, thence due north to the forty-second degree of north latitude, thence along the boundary line as defined in the treaty between Spain and the United States to the beginning.

#### FIRST MEXICAN CESSION.

In 1848 a further addition was made to our territory by the treaty of Guadalupe-Hidalgo. This added to the country the area of California, Nevada, Utah, and parts of Colorado, Arizona, and New Mexico. (See fig. 1.)

The treaty of Guadalupe-Hidalgo was concluded February 2, 1848, and proclaimed July 4, 1848. The clauses in it defining our acquisition of territory are as follows:<sup>46</sup>

ARTICLE V. The boundary line between the two Republics shall commence in the Gulf of Mexico, three leagues from land, opposite the mouth of the Rio Grande, otherwise called the Rio Bravo del Norte, or opposite the mouth of its deepest branch, if it should have more than one branch emptying directly into

<sup>46</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 1109.



the sea; from thence up the middle of that river, following the deepest channel where it has more than one, to the point where it strikes the southern boundary of New Mexico; thence, westwardly, along the whole southern boundary of New Mexico (which runs north of the town called Paso) to its western termination; thence, northward, along the western line of New Mexico, until it intersects the first branch of the river Gila; (or if it should not intersect any branch of that river, then to the point on the said line nearest to such branch, and thence in a direct line to the same;) thence down the middle of the said branch and of the said river, until it empties into the Rio Colorado; thence across the Rio Colorado, following the division line between Upper and Lower California, to the Pacific Ocean.

The southern and western limits of New Mexico, mentioned in this article, are those laid down in the map entitled "Map of the United Mexican States, as organized and defined by various acts of the Congress of said republic, and constructed according to the best authorities. Revised edition. Published at New York in 1847, by J. Disturnell;" [see Pl. IV. in pocket] of which map a copy is added to this treaty, bearing the signatures and seals of the undersigned Plenipotentiaries. And in order to preclude all difficulty in tracing upon the ground the limit separating Upper from Lower California, it is agreed that the said limit shall consist of a straight line drawn from the middle of the Rio Gila, where it unites with the Colorado, to a point on the coast of the Pacific Ocean, distant one marine league due south of the southernmost point of the port of San Diego, according to the plan of said port made in the year 1782 by Don Juan Pantoja, second sailing-master of the Spanish fleet, and published at Madrid in the year 1802, in the atlas to the voyage of the schooners *Sutil* and *Mexicana*; of which plan a copy is hereunto added, signed, and sealed by the respective plenipotentiaries.

For this vast territory the United States agreed to pay \$15,000,000, of which \$3,000,000 was to be paid when the treaty was ratified, and the remainder in annual installments of \$3,000,000 each, with interest at 6 per cent. Besides this, the United States assumed the liability for certain claims against Mexico, not to exceed a total of \$3,250,000.

Much difficulty followed in the interpretation of this treaty. A joint commission of the two Governments was formed, consisting of a commissioner and a chief surveyor from each. They were instructed that any decision upon the interpretation of the treaty must be agreed to unanimously.

Under the direction of the commissioners the initial point of the boundary between Upper and Lower California was established on the Pacific coast and marked by a substantial monument. A similar determination was made at the eastern extremity of this line, at the junction of Gila and Colorado rivers, where another monument was placed. Between these the line was run and marked with five intermediate monuments.

The most important question that came before the commission for decision concerned the location and extent of the south boundary of New Mexico. Here, unfortunately, the Disturnell map left room for broad differences of opinion. The town called Paso (now named



Juarez) was incorrectly located on the map more than half a degree too far north and nearly  $2^{\circ}$  too far east.

In the absence of the chief surveyor the three other members of the commission agreed to accept the position of the south boundary of New Mexico as shown by the projection lines on the map (latitude  $32^{\circ} 22'$ ); to run a line in that latitude  $3^{\circ}$  west from the Rio Grande and thence north until a branch of Gila River was intersected. In accordance with this decision a durable monument was erected on the bank of the Rio Grande, in latitude  $32^{\circ} 22'$ , and the running of the line westward was begun. (See fig. 19.) After  $11\frac{1}{2}^{\circ}$  had been run the chief surveyor arrived, learned what had been done, and made a vigorous protest against this interpretation of the map. This protest, backed by that of the chief astronomer, caused the sudden stoppage of the work of running the line and the repudiation of the agreement by the United States Government.

The United States claimed that the boundary should be located with reference to the town of Paso—the only definite point for it named in the treaty. Under this claim, according to later observations, the south boundary of New Mexico would be placed at about latitude  $31^{\circ} 52'$ , and it would extend west to longitude  $109^{\circ} 30'$ .

Negotiations followed, but no agreement had been reached before 1853, when the Gadsden Purchase made further discussion unnecessary.

#### GADSDEN PURCHASE.

On December 30, 1853, a second purchase was made of Mexico consisting of the strip of land lying south of Gila River in New Mexico and Arizona, the consideration being \$10,000,000 in gold. This is known as the Gadsden Purchase, from the name of the United States commissioner, James Gadsden. The boundaries as established were as follows<sup>47</sup> (see figs. 1 and 19):

ARTICLE I. The Mexican Republic agrees to designate the following as her true limits with the United States for the future: Retaining the same dividing line between the two Californias as already defined and established according to the fifth article of the treaty of Guadalupe Hidalgo, the limits between the two republics shall be as follows: Beginning in the Gulf of Mexico, three leagues from land, opposite the mouth of the Rio Grande, as provided in the fifth article of the treaty of Guadalupe Hidalgo; thence, as defined in the said article, up the middle of that river to the point where the parallel of  $31^{\circ} 47'$  north latitude crosses the same; thence due west one hundred miles; thence south to the parallel of  $31^{\circ} 20'$  north latitude; thence along the said parallel of  $31^{\circ} 20'$  to the 111th meridian of longitude west of Greenwich; thence in a straight line to a point on the Colorado River twenty English miles below the junction of the Gila and Colorado rivers; thence up the middle of the said river Colorado until it intersects the present line between the United States and Mexico.

<sup>47</sup> Malloy, W. M., op. cit., vol. 1, p. 1121.

In the year following a commission was appointed for surveying and marking this line, under the United States commissioner, Maj. W. H. Emory. The line was run and marked in the year 1855, and the report <sup>48</sup> was transmitted in the following year.

As settlement increased in the territory which this line traverses, it became evident that the line was insufficiently marked. Some of the monuments had disappeared, and there were many great areas of country in which no monuments had ever been placed, so that the necessity of rerunning and marking the line became apparent. For this purpose a commission was created in 1891, under which the line was recovered from the original monuments, as far as possible, and between these monuments was rerun and fully and durably marked. The report, <sup>49</sup> with maps, profiles, and illustrations of the monuments, was published in 1898. (See Pl. I, B.)

#### ALASKA PURCHASE.

Alaska was purchased from Russia, by a convention signed March 30, 1867, and proclaimed June 20, 1867, and was made a Territory by act of August 24, 1912.<sup>50</sup> The boundaries of Alaska are described in the accompanying quotations from Article I of the convention <sup>51</sup> (see figs. 3 and 4) :

Commencing from the southernmost point of the island called Prince of Wales Island, which point lies in the parallel of 54 degrees 40 minutes north latitude, and between the 131st and 133d degree of west longitude (meridian of Greenwich,) the said line shall ascend to the north along the channel called Portland channel, as far as the point of the continent where it strikes the 56th degree of north latitude; from this last-mentioned point, the line of demarcation shall follow the summit of the mountains situated parallel to the coast as far as the point of intersection of the 141st degree of west longitude, (of the same meridian;) and finally, from the said point of intersection, the said meridian line of the 141st degree, in its prolongation as far as the Frozen ocean.

IV. With reference to the line of demarcation laid down in the preceding article, it is understood—

1st. That the island called Prince of Wales Island shall belong wholly to Russia, (now, by this cession, to the United States).

2d. That whenever the summit of the mountains which extend in a direction parallel to the coast from the 56th degree of north latitude to the point of intersection of the 141st degree of west longitude shall prove to be at the distance of more than ten marine leagues from the ocean, the limit between the British possessions and the line of coast which is to belong to Russia as above mentioned (that is to say, the limit to the possessions ceded by this convention) shall be formed by a line parallel to the winding of the coast, and which shall never exceed the distance of ten marine leagues therefrom.

<sup>48</sup> 34th Cong., 1st sess., H. Ex. Doc. 135.

<sup>49</sup> 55th Cong., 2d sess., S. Doc. 247.

<sup>50</sup> 37 Stat. L., pt. 1, p. 512.

<sup>51</sup> Malloy, W. M., op. cit., vol. 2, p. 1521.

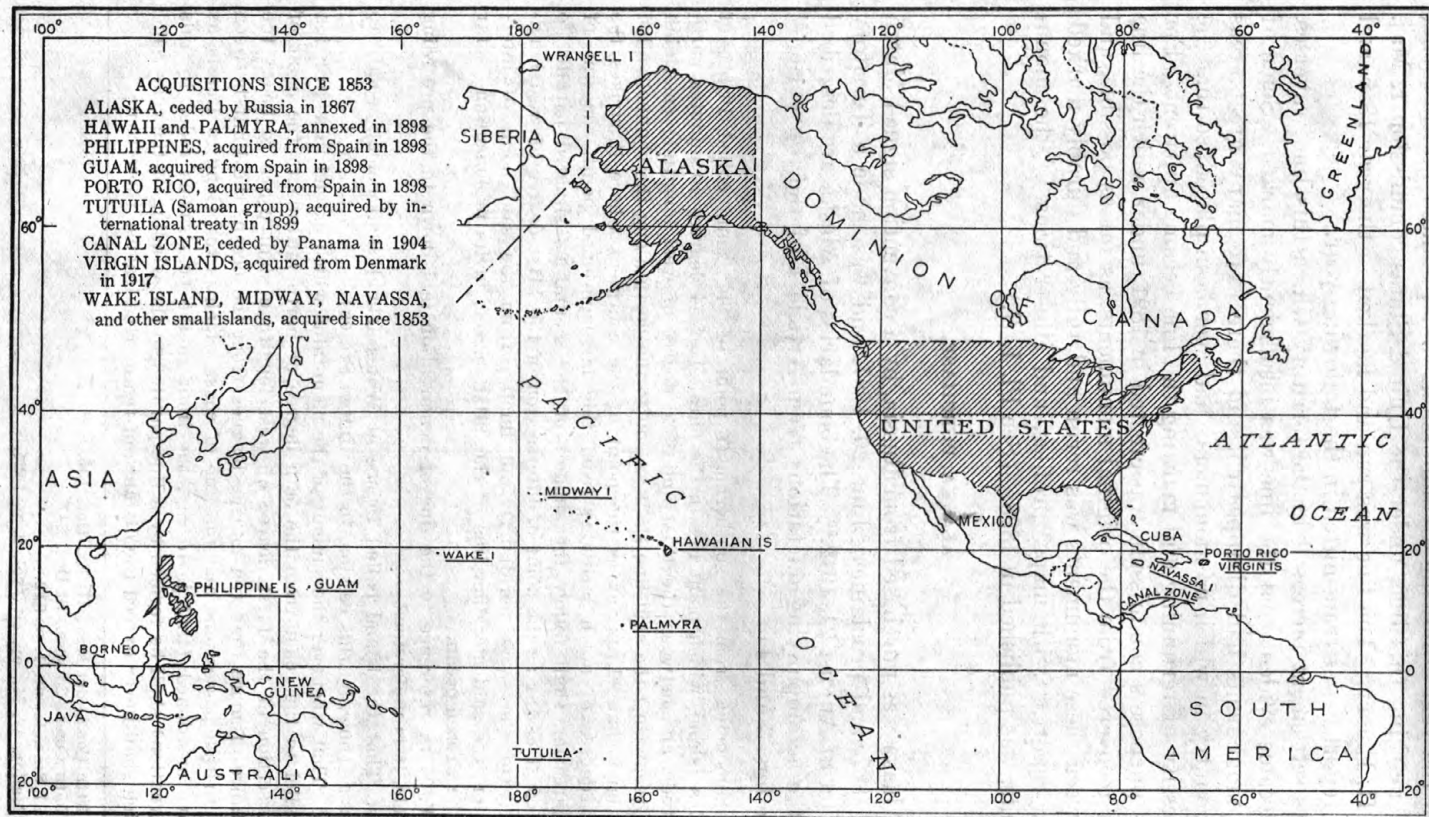


FIGURE 3.—Map of the United States showing possessions acquired since 1853.

The western limit within which the territories and dominion conveyed, are contained, passes through a point in Behring's straits on the parallel of sixty-five degrees thirty minutes north latitude, at its intersection by the meridian which passes midway between the islands of Krusenstern, or Ignalook, and the island of Ratmanoff, or Noonarbook, and proceeds due north, without limitation, into the same Frozen ocean. The same western limit, beginning at the same initial point, proceeds thence in a course nearly southwest, through Behring's straits and Behring's sea, so as to pass midway between the northwest point of the island of St. Lawrence and the southeast point of Cape Choukotski, to the meridian of one hundred and seventy-two west longitude; thence, from the intersection of that meridian, in a southwesterly direction, so as to pass midway between the island of Attou and the Copper island of the Kormandorski couplet or group, in the North Pacific ocean, to the meridian of one hundred and ninety-three degrees west longitude, so as to include in the territory conveyed the whole of the Aleutian islands east of that meridian.

The consideration paid for Alaska was \$7,200,000 in gold.

There is no possibility of misinterpreting the language of the above convention as to the portion of the boundary running along the one hundred and forty-first meridian from the shore of the Arctic Ocean to a point near Mount St. Elias, but when the wealth of the area was recognized the claims of the United States as to the location of the part of the boundary from Mount St. Elias south-eastward to the mouth of Portland Canal were questioned by Canadian authorities.

The coast of this part of Alaska is extremely broken, containing many fiords extending far inland, and no continuous range of mountains parallels the coast. It was for many years tacitly admitted by both sides that the second alternative of the treaty, that the boundary should be a line 10 marine leagues distant from the coast and following its windings, should be the one finally adopted when the question of marking the boundary arose. This position was taken by the United States and consistently followed from the time of the acquisition of the territory to the present. All maps, United States and Canadian, agreed on it. Many acts of sovereignty were performed by the United States within this territory, no question being raised by the Canadian authorities. The discovery of gold in the basin of the Yukon, in Canada, and the fact that the only feasible means of access to this region lay through United States territory made it extremely desirable for Canada to possess a port or ports on this coast as the starting points of routes to the Yukon mines, and it was only when this necessity appeared that any question arose concerning the interpretation of the definition of limits in the treaty.

The claim made by the British Government on behalf of Canada before a joint commission on the boundary in August, 1898, was that this portion of the boundary, instead of passing up Portland Canal, should pass up Pearse Canal, connecting with Portland Canal, up which it follows to the summit of the mountains nearest



to the coast, and then should follow them, regardless of the fact that they do not form a continuous range, crossing all the inlets of the sea up to Mount St. Elias. This claim was, of course, refused by the United States commissioners. A proposition made by the British commissioners to refer the matter to arbitration was also refused by the United States commissioners, on the ground that there was nothing to arbitrate, inasmuch as the territory in question was in the possession of the United States and had been for many years without dispute, such possession being in full accord with the terms of the treaty. The commission was then dissolved, the only outcome being an agreement that the summits of White and Chilkoot passes and a point upon the Chilkat, above Pyramid Harbor, were temporarily adopted as points upon the boundary.

The convention of January 24, 1903, created an Alaskan Boundary Tribunal, to consist of "six impartial jurists of repute," three to be selected by each of the two parties to the controversy, to attempt a settlement of this boundary question. The United States was represented by Messrs. Elihu Root, Henry Cabot Lodge, and George Turner. The Canadian side was represented by Baron Alverstone, lord chief justice of England; Sir Louis A. Jetté and A. B. Aylesworth, of Canada. After argument and discussion the majority of the tribunal, consisting of Baron Alverstone and the three Americans on October 20, 1903, agreed on a boundary which satisfied the American claims. The boundary thus adopted may be defined as follows: It commences at Cape Muzon. Thence it crosses in a straight line to the mouth of Portland Channel [Canal], this entrance being west of Wales Island, and passes up the channel to the north of Wales and Pearse islands to the fifty-sixth parallel of latitude. Thence the line runs from one mountain summit to another, as shown on the accompanying map (fig. 4), passing above the heads of all fiords. At the head of Lynn Canal it traverses White and Chilkoot passes. Thence by a tortuous southwesterly course it reaches Mount Fairweather and thence follows the higher mountains around Yakutat Bay to Mount St. Elias.

Lack of accurate maps prevented the tribunal from describing in detail about 120 miles of the "coast boundary," but by an exchange of notes between the two Governments amicable arrangements were made for the selection by commissioners of additional summits as boundary marks.

The survey of the coast boundary, about 862 miles in length, was completed in 1914, and the line is marked by concrete monuments along the shores of Portland Canal, by 5-foot aluminum-bronze monuments in the valleys of streams crossed by conical monuments on easily accessible summits (see Pl. I, *D* and *E*) and by brass bolts



on peaks less easily ascended. Inaccessible mountain peaks on the line were located by triangulation. The report on the survey of the coast boundary is in preparation.

In accordance with the convention of April 21, 1906, commissioners were appointed under whose direction the one hundred and forty-first meridian has been established and intervisible marks placed along the line from the Arctic Ocean to Mount St. Elias, a distance of about 645 miles, the field work having been completed in 1913.



FIGURE 4.—Map showing award of Alaska Boundary Tribunal, October 20, 1903.

The final report of the commissioners, dated December 15, 1918, was published in 1919 and is accompanied by an atlas containing 38 sheets of maps. The report is entitled "Joint report upon the survey and demarcation of the international boundary between the United States and Canada along the one hundred and forty-first meridian from the Arctic Ocean to Mount St. Elias." This report contains copies of treaties and historical data relating to the location of the boundary.

It is an interesting fact that the area of Alaska and the Aleutian Islands, if superimposed on the United States in true north-south

position so as to touch the Canadian boundary a short distance west of the Lake of the Woods, would reach the Atlantic Ocean near the line between Georgia and South Carolina, cross the Mexican boundary in southwestern New Mexico, and touch the Pacific Ocean in southern California.

#### HAWAIIAN ISLANDS.

The Republic of Hawaii was formally annexed to the United States by the voluntary action of its citizens and a joint resolution of Congress approved July 7, 1898. The transfer of sovereignty took place August 12, 1898. The area was constituted a Territory by act of Congress April 30, 1900, effective June 14, 1900.<sup>52</sup>

The Hawaiian Islands and adjacent islets are scattered over a considerable area which extends nearly 2,000 miles in a general north-west-southeast direction and has a width of about 150 miles. (See fig. 3.) The eight inhabited islands, which lie between latitude  $19^{\circ} 00'$  and  $22^{\circ} 15' N.$ , longitude  $155^{\circ} 00'$  and  $162^{\circ} 00' W.$ , and have a total area of 6,406 square miles, are as follows:

Hawaii, greatest length 81 miles, greatest width 73 miles, area 4,016 square miles; the highest point is Mauna Kea, 13,825 feet above sea level.

Maui, about 42 miles long and 23 miles wide, area 728 square miles; greatest height 10,032 feet.

Oahu, about 40 miles long and 26 miles wide, area 598 square miles; highest peak is slightly over 4,000 feet in elevation.

Kauai is nearly circular and about 23 miles in diameter, area 547 square miles; greatest elevation about 5,200 feet.

Molokai, about 34 miles long and 7 miles wide, area 261 square miles; highest point 4,970 feet.

Lanai, about 15 miles long and 10 miles wide, area 139 square miles; highest point 3,400 feet in elevation.

Niihau, about 16 miles in length and 3 to 5 miles in width, area 73 square miles; maximum height about 1,300 feet.

Kahoolawe, about 9 miles long and 6 miles wide, area 44 square miles; highest point 1,450 feet.

The most important of the islands outside the main group are:

Nihoa or Bird Island, latitude  $23^{\circ} 06' N.$ , longitude  $161^{\circ} 58' W.$ , about three-fourths of a mile long and one-fourth of a mile wide; highest point 903 feet.

Gardner Island, latitude  $25^{\circ} 01' N.$ , longitude  $167^{\circ} 59' W.$ , an inaccessible rock 170 feet high and about 600 feet in diameter.

<sup>52</sup> 31 Stat. L. 141. For a summary of legislative acts relating to this transfer see Moore, J. B., *A digest of international law*: 56th Cong., 2d sess., H. Doc. 551, vol. 1, pp. 475-520, 1906.

Laysan Island, latitude  $25^{\circ} 42' N.$ , longitude  $171^{\circ} 44' W.$ , is  $1\frac{1}{4}$  miles long, 1 mile wide, and 55 feet in extreme height.

Lisiansky Island, latitude  $26^{\circ} 00' N.$ , longitude  $173^{\circ} 50' W.$ , about 1 mile long, half a mile wide, and 44 feet high.

Midway Islands, sometimes called Brooks Islands, two small coral islands in latitude  $28^{\circ} 13' N.$ , longitude  $177^{\circ} 22' W.$ , about 1,200 miles a little north of west from Honolulu. Discovered by Captain Brooks in 1859 and claimed by the United States in 1867 by right of discovery and occupation. The larger island is  $1\frac{1}{4}$  miles long and rises 43 feet above sea level. On this island there is a cable station and lighthouse.<sup>53</sup> Total area about  $1\frac{1}{2}$  square miles.

Ocean (also called Cure or Kuré) Island, latitude  $28^{\circ} 25' N.$ , longitude  $178^{\circ} 25' W.$ , an atoll about 15 miles in circumference.<sup>54</sup>

Two islands at some distance southwest of the main group are under the jurisdiction of Hawaii; these are

Johnstons Island, also called Cornwallis Island, latitude  $16^{\circ} 45' N.$ , longitude  $169^{\circ} 30' W.$ , a grass-covered lagoon island half a mile in length.

Palmyra Island, latitude  $5^{\circ} 52' N.$ , longitude  $162^{\circ} 06' W.$ , known also as Samarang Island, was annexed to Hawaii in 1862. It is an atoll occupying an area about 6 miles long and  $1\frac{1}{2}$  miles wide and consists of more than 50 small coral islets varying from less than half an acre to 46 acres in size, covered with brush and coconut trees.<sup>55</sup>

#### PORTO RICO, GUAM, AND THE PHILIPPINE ISLANDS.<sup>56</sup>

The next important accession of territory made by the United States consists of the islands ceded by Spain by the treaty of peace concluded December 10, 1898.<sup>57</sup> (See fig. 3.) Article 2 of that treaty is:

Spain cedes to the United States the island of Porto Rico and other islands now under Spanish sovereignty in the West Indies, and the island of Guam in the Marianas or Ladrões.

Porto Rico has an area of 3,435 square miles. The largest of the other West Indian Islands referred to is Vieques, and others are

<sup>53</sup> See description in 40th Cong., 2d sess., Sen. Ex. Doc. 79, and 40th Cong., 3d sess., S. Rept. 194, also references to legislative action in Moore, J. B., op. cit., vol. 1, p. 555.

<sup>54</sup> For references to other islands belonging to this group see Coast pilot notes on Hawaiian Islands: U. S. Coast and Geodetic Survey, Serial 139, 1920. See also 55th Cong., 3d sess., S. Ex. Doc. 16; and 52d Cong., 2d sess., S. Ex. Doc. 76.

<sup>55</sup> Pacific islands pilot: U. S. Hydrographic Office Pub. 166, vol. 2, p. 444, 1916. Rock, J. F., Palmyra Island, with a description of its flora, Honolulu, 1916.

<sup>56</sup> For information on the insular possessions of the United States see Noncontiguous territory; Supreme Court decisions and official opinions by the Attorney General: 59th Cong., 2d sess., S. Doc. 204; 61st Cong., 1st sess., S. Doc. 47; 62d Cong., 2d sess., S. Doc. 306; 63d Cong., 1st sess., S. Doc. 173, etc.

<sup>57</sup> Malloy, W. M., op. cit., vol. 2, p. 1691.

Culebra, Mona, and Desecheo. These islands, including Porto Rico, all lie in the area between latitude  $17^{\circ} 42'$  and  $18^{\circ} 31' N.$  and longitude  $65^{\circ} 20'$  and  $67^{\circ} 55' W.$  Possession was taken by the United States October 18, 1898.

The island of Guam is at latitude  $13^{\circ} 30' N.$ , longitude  $144^{\circ} 45' E.$ , and has an area of 206 square miles.

The Philippine Islands comprise all the islands lying within the following limits, as defined in article 3 of the treaty:<sup>58</sup>

A line running from west to east along or near the twentieth parallel of north latitude, and through the middle of the navigable channel of Bachi, from the one hundred and eighteenth (118th) to the one hundred and twenty-seventh (127th) degree meridian of longitude east of Greenwich; thence along the one hundred and twenty-seventh (127th) degree meridian of longitude east of Greenwich to the parallel of four degrees and forty-five minutes ( $4^{\circ} 45'$ ) north latitude; thence along the parallel of four degrees and forty-five minutes ( $4^{\circ} 45'$ ) north latitude to its intersection with the meridian of longitude one hundred and nineteen degrees and thirty-five minutes ( $119^{\circ} 35'$ ) east of Greenwich; thence along the meridian of longitude one hundred and nineteen degrees and thirty-five minutes ( $119^{\circ} 35'$ ) east of Greenwich to the parallel of latitude seven degrees and forty minutes ( $7^{\circ} 40'$ ) north; thence along the parallel of latitude seven degrees and forty minutes ( $7^{\circ} 40'$ ) north to its intersection with the one hundred and sixteenth (116th) degree meridian of longitude east of Greenwich; thence by a direct line to the intersection of the tenth (10th) degree parallel of north latitude with the one hundred and eighteenth (118th) degree meridian of longitude east of Greenwich; and thence along the one hundred and eighteenth (118th) degree meridian of longitude east of Greenwich to the point of beginning.

Subsequently the United States, by treaty concluded November 7, 1900, purchased from Spain for the sum of \$100,000 a small group of islands lying north of Borneo, known as Cagayan Sulu and Sibutu and their dependencies, which, though a part of the Philippine Archipelago, were omitted by mistake in drawing the limits of the Philippines in the treaty of 1898.

There are said to be more than 7,000 islands in the Philippine Archipelago having areas of one-tenth of a square mile or more. Only 31 of the islands have areas greater than 100 square miles. Luzon, the largest, has an area of about 40,969 square miles, and its coast line exceeds 2,200 miles. The highest peak in the entire group is Mount Apo, on the island of Mindanao, 9,610 feet in height.<sup>59</sup> For the Philippine Islands the sum of \$20,000,000 was paid by the United States to Spain.

The estimated area of the Philippine Islands is 114,400 square miles.

<sup>58</sup> Malloy, W. M., *op. cit.*, vol. 2, p. 1691.

<sup>59</sup> For a brief history of the Philippines and descriptions of the principal islands see U. S. Coast Pilot, Philippine Islands, 2 vols., U. S. Coast and Geodetic Survey, 1919, 1921.

SAMOA ISLANDS.<sup>60</sup>

For several years the United States, Great Britain, and Germany exercised a joint protectorate over the Samoa Islands.<sup>61</sup> For various reasons it was deemed best to bring this situation to an end. England withdrew, and the islands were divided between Germany and the United States, the latter taking all the islands of the group lying east of longitude 171° west of Greenwich. This adjustment was reached by a convention between the United States, Germany, and Great Britain, concluded December 2, 1899, and proclaimed February 16, 1900.<sup>62</sup>

Tutuila Island, the largest of the Samoan group belonging to the United States, has a length of 20 miles and a breadth of about 6 miles. Its extreme height is 2,141 feet, and its area (scaled from hydrographic chart 2924) is 52 square miles. About 60 miles to the east are the three Manua Islands, the largest of which is Tau, about 5½ miles in length, 3,056 feet in extreme height, and 17 square miles in area. Olosega Island is about 3 miles in length and 2,095 feet in height and covers an area of 2 square miles. Ofu Island is about 3 miles long; its highest point is 1,587 feet, and its area 3 square miles.

Rose Island, about 80 miles east of the Manua Islands, is an atoll about 3 miles in diameter, mostly under water at high tide. There are two islets on its eastern edge having a combined area of less than half a square mile. Besides these there are several small islets of minor importance. All these islands lie between 14° and 15° south latitude and 168° and 171° west longitude. The estimated area of this accession is 75 square miles.

## WAKE ISLAND.

Wake Island is an uninhabited atoll in latitude 19° 18' N., longitude 166° 32' E., consisting of three islets separated at high tide and having a total area of about 3½ square miles. The highest point is about 18 feet above sea level.

Possession on behalf of the United States was taken on January 17, 1899, by the commander of the United States ship *Bennington*.<sup>63</sup>

## CANAL ZONE.

In order to insure the construction of a ship canal across the Isthmus of Panama, a strip of land 10 miles in width was ceded to

<sup>60</sup> For reference to legislative action leading up to the acquisition of the Samoa group see Moore, J. B., op. cit., vol. 1, pp. 536-554; Malloy, W. M., op. cit., vol. 2, p. 1595.

<sup>61</sup> Thorpe, F. N., op. cit., vol. 6, p. 3675.

<sup>62</sup> Idem, p. 3685.

<sup>63</sup> See Moore, J. B., op. cit., vol. 1, p. 555; Pacific Islands Pilot, vol. 1, p. 527, U. S. Hydrographic Office, 1916.



the United States by the Republic of Panama by a convention concluded November 18, 1903.<sup>64</sup> This area (see fig. 5) is described in article 2 as

a zone of land and land under water for the construction, maintenance, operation, sanitation, and protection of said canal of the width of ten miles extending to the distance of five miles on each side of the center line of the route of the canal to be constructed; the said zone beginning in the Caribbean Sea three marine miles from mean low water mark and extending to and across the Isthmus of Panama into the Pacific Ocean to a distance

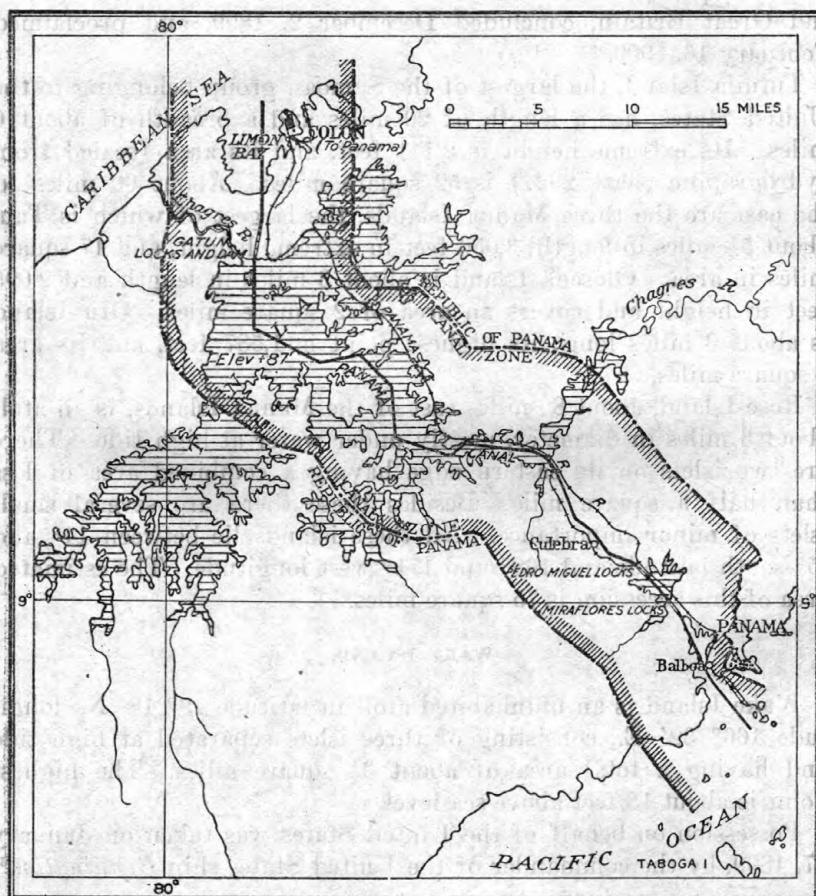


FIGURE 5.—Map of the Canal Zone.

of three marine miles from mean low water mark with the proviso that the cities of Panama and Colon and the harbors adjacent to said cities, which are included within the boundaries of the zone above described, shall not be included within this grant. The Republic of Panama further grants to the United States in perpetuity the use, occupation, and control of any other lands and waters outside of the zone above described which may be necessary and convenient for the construction, maintenance, operation, sanitation, and

<sup>64</sup> Malloy, W. M., op. cit., vol. 2, p. 1349.

protection of the said canal or of any auxiliary canals or other works necessary and convenient for the construction, maintenance, operation, sanitation, and protection of the said enterprise.

The Republic of Panama further grants in like manner to the United States in perpetuity all islands within the limits of the zone above described and in addition thereto the group of small islands in the Bay of Panama, named Perico, Naos, Culebra, and Flamenco.

By article 14 of the convention the United States agreed to pay to the Republic of Panama \$10,000,000, also to make annual payments of \$250,000 beginning 9 years after the convention was ratified. Possession was taken of this tract on June 15, 1904; the boundaries have been surveyed and have been marked at average intervals of half a mile by iron posts bearing brass caps.

Under the clause in article 2 that permitted the United States to take control of "other lands and waters outside of the zone" the United States from time to time has taken possession of various areas outside of the 5-mile limits, which are officially designated "auxiliary areas." The largest of these is Gatun Lake with its islands and its shores up to an elevation of 100 feet above mean sea level.

A second convention was concluded September 2, 1914, which recognized the transfer of the Gatun Lake area to the United States and by article 3 ceded to the Republic of Panama an area of about 6½ square miles adjoining the city of Panama on the north east.<sup>65</sup> This convention also defined the Canal Zone boundary around the city of Colon and the harbors of Colon and of Panama.

The estimated area of the Canal Zone (1921), including Gatun Lake to the 100-foot contour outside the original 10-mile zone, is 527.3 square miles—170.2 water area and 357.1 land area. The United States exercises jurisdiction over all areas taken over for canal uses. These comprise several tracts in various parts of the Republic of Panama.<sup>66</sup>

#### VIRGIN ISLANDS OF THE UNITED STATES.

In various acts of Congress the former Danish West Indies are referred to as the Virgin Islands, but since June, 1917, the United States Navy Department has added "of the United States" to the name to distinguish these islands from the Virgin Islands belonging to Great Britain.<sup>67</sup> The Post Office Department uses the same descriptive title.

By a convention concluded August 4, 1916, Denmark ceded to the United States

<sup>65</sup> Malloy, W. M., op. cit., vol. 2, p. 15.

<sup>66</sup> Letter from the governor of the Zone, dated Mar. 31, 1921.

<sup>67</sup> Letter of Dec. 9, 1922, from Director of Naval Intelligence Office.

all territory, dominion, and sovereignty possessed, asserted, or claimed by Denmark in the West Indies, including the islands of Saint Thomas, Saint John, and Saint Croix, together with the adjacent islands and rocks.

The three principal islands of this group have a total area of 128 square miles, besides which there are many small islands of little value which make the total area of the group 133 square miles. The purchase price was \$25,000,000, or nearly \$300 an acre.<sup>68</sup> By act of Congress, approved March 3, 1917,<sup>69</sup> this cession was to become effective after the President had announced that the amount agreed upon had been paid to Denmark. The proclamation was dated March 31, 1917.<sup>70</sup>

#### GUANO ISLANDS.

An act of Congress approved August 18, 1856, contains the following provisions:

SECTION 5570. Whenever any citizen of the United States discovers a deposit of guano on any island, rock, or key, not within the lawful jurisdiction of any other government, and not occupied by the citizens of any other government, and takes peaceable possession thereof, and occupies the same, such island, rock, or key may, at the discretion of the President, be considered as appertaining to the United States.

\* \* \* \* \*

SECTION 5578. Nothing in this title contained shall be construed as obliging the United States to retain possession of the islands, rocks, or keys, after the guano shall have been removed from the same.

Before 1880 bonds were filed for about 70 islands under this act,<sup>71</sup> but recent information indicates that erroneous names and geographic positions were given for many of them; for some single islands several names and positions had been given.

From the best data now available it seems probable that the United States still has valid claims to sovereignty over the following:

Navassa Island, latitude 18° 24' N., longitude 75° 01' W.; of volcanic origin, about 2 miles long and 1 mile wide, rising from

<sup>68</sup> For an outline of the negotiations that led up to this purchase see 64th Cong., 2d sess., H. Doc. 1505.

<sup>69</sup> 39 Stat. L. 1132.

<sup>70</sup> 39 Stat. L. 1649.

<sup>71</sup> Lists of these islands appear in a Treasury Department circular dated Feb. 12, 1869; in Moore, J. B., *Digest of international laws*, vol. 1, pp. 556-580, 1906; in Magoon, C. E., *Report on the legal status of the territory and inhabitants of the islands acquired by the United States* \* \* \* considered with reference to territorial boundaries, pp. 14-17, 1900; also on the General Land Office maps of the United States for 1918 and 1919. Brief descriptions of the Pacific islands are given in Brigham, W. T., *Index to the islands of the Pacific Ocean*, Honolulu, 1900; in *Pacific islands pilot*: U. S. Hydrographic Office Pub. 166, vol. 2, 1916; and in *Reported dangers to navigators in the Pacific Ocean*: U. S. Hydrographic Office Pubs. 41, 1871, 41a, 1879, and 41b, 1880. *Stewart's Handbook of the Pacific Islands*, edited by Percy S. Allen (McCarron Stewart & Co. (Ltd.), 22-26 Goulburn Street, Sydney, N. S. W., Australia, 1920), besides excellent descriptions of all the principal islands, contains a bibliography. The islands in the West Indies are described in *Central America and Mexico pilots*: U. S. Hydrographic Office Pub. 130, and *West Indies pilot*: Hydrographic Office Pub. 128.

100 to 250 feet above the sea. A lighthouse and a small settlement are on this island.

Gente Hermosa, also called Swain's Island and Quiros, latitude  $11^{\circ} 03' S.$ , longitude  $171^{\circ} 06' W.$ , is about 4 miles in circumference and 20 feet high; its area including a central lagoon of one-third square mile is  $1\frac{1}{3}$  square miles. It was discovered by Quiros in 1606 and named by him *La Peregrina*, but the position then given for it was so much in error as to lead an American whaling captain named Swain to assume the right of discovery upon landing there. It was examined in 1840 by the United States exploring expedition under Wilkes and renamed Swain's Island. In 1856 and for many years thereafter it was occupied by an American family named Jennings, engaged in raising coconuts. An official communication regarding this island from the British Government, dated January 30, 1918, stated that it was understood "that the island in question is United States territory."

Quita Sueno Bank, latitude  $14^{\circ} 28' N.$ , longitude  $81^{\circ} 07' W.$ , extends for about 20 miles north and south and has patches of dry land at intervals. It was declared by presidential proclamation of February 25, 1919, to be under the exclusive jurisdiction of the United States, and "the north or other suitable portion" was reserved for a lighthouse. The lighthouse is at the latitude and longitude given.

Roncador Cay, latitude  $13^{\circ} 34' 30'' N.$ , longitude  $80^{\circ} 04' W.$ , rises about 12 feet above the water. It is about one-fourth of a mile long and is at the north end of a series of small cays. By presidential proclamation of June 5, 1919, it was declared to be under the exclusive jurisdiction of the United States and was reserved as a site for a lighthouse.

Serrana Bank, latitude  $14^{\circ} 17' N.$ , longitude  $80^{\circ} 24' W.$ , comprises three low islands, the largest of which, the southwest cay, is about half a mile long and has an extreme height of about 30 feet. This cay was declared by presidential proclamation of February 25, 1919, to be under the exclusive jurisdiction of the United States and was reserved for a lighthouse, which is in the position above given.

Swan Islands, Great and Little, latitude  $17^{\circ} 25' N.$ , longitude  $83^{\circ} 55' W.$  The western island, Great Swan Island, is about 2 miles long and the eastern island about  $1\frac{1}{2}$  miles, and each is about half a mile in breadth. A radio station and lighthouse are on Great Swan. In decisions by the Attorney General, volume 31,<sup>72</sup> it is stated that the United States may still assert sovereignty over the Swan Islands, for no other nation has asserted a claim to them.

The ownership of some of the guano islands is uncertain. Several of them have been claimed by Great Britain, without formal protest

<sup>72</sup> 66th Cong., 2d sess., H. Doc. 48, 1920.



by the United States, except that in the case of Christmas Island (lat.  $1^{\circ} 57' N.$ , long.  $157^{\circ} 28' W.$ ) the Secretary of State, in a letter dated April 30, 1888, said that the United States reserved all questions that might grow out of the occupation.<sup>73</sup>

#### GUANTANAMO AND BAHIA HONDA, ISLAND OF CUBA.

By agreements signed by the Presidents of the United States and Cuba, in February, 1903, Cuba agreed to lease or sell coaling or naval stations to the United States, in accordance with a clause in the constitution of the Republic of Cuba.<sup>74</sup> The lease of about 30 square miles of land and water on Guantanamo Bay, near Santiago, and of a small area at Bahia Honda, on the northwest coast, was signed July 2, 1903, the United States agreeing to pay \$2,000 a year rental for the two areas.<sup>75</sup> The land boundaries of the area on Guantanamo Bay are thus described in the agreement:

From a point on the south coast 4.37 nautical miles to the eastward of Windward Point Lighthouse, a line running north (true) a distance of 4.25 nautical miles;

From the northern extremity of this line, a line running west (true) a distance of 5.87 nautical miles;

From the western extremity of this last line, a line running southwest (true) 3.31 nautical miles;

From the southwestern extremity of this last line, a line running south (true) to the seacoast.

The outlines of this area are shown on United States hydrographic chart 1857.

#### WRANGELL ISLAND.

Wrangell Island is in the Arctic Ocean, about 109 miles from the Siberian coast. A harbor in the southeastern part is in latitude  $70^{\circ} 57' N.$  and longitude  $178^{\circ} 10' W.$  The island is about 70 miles long and 35 miles wide. It was sighted in 1867 by the captain of a United States sailing vessel. In 1881 officers from United States naval vessels landed on the island and claimed it for the United States.

The question of ownership of this island is unsettled.<sup>76</sup>

#### TONGA ISLANDS.

By Article VI of a treaty between the United States and the King of Tonga, signed October 2, 1886, the King of Tonga agreed

to secure to the Government of the United States by lease at nominal rent  
\* \* \* use of necessary ground in any harbor of the Tonga Islands which

<sup>73</sup> From letter of Sept. 12, 1919, from the Director of the Office of Naval Intelligence, U. S. Navy Department.

<sup>74</sup> Malloy, W. M., *op. cit.*, vol. 1, p. 358.

<sup>75</sup> *Idem*, p. 361.

<sup>76</sup> See Arctic Pilot, vol. 1, p. 338, 1917; and U. S. Geol. Survey Bull. 299, p. 682, 1906.



shall be mutually agreed upon for the purpose of establishing a permanent coaling and repair station.

Ground thus acquired was to remain under Tongan sovereignty. Article XIV specified that this agreement regarding a coaling and repair station could be abrogated only by mutual consent.<sup>77</sup> So far as can be ascertained, this agreement is still in force, but no use has been made by the United States of the privilege thus acquired.

#### YAP ISLAND.

Although the United States does not own the island of Yap, it has important treaty rights there. The island is of volcanic origin and is in latitude 9° 30' N., longitude 138° 10' E. Including adjacent coral reefs, it is about 35 by 4½ miles in extreme dimensions, and its area is about 80 square miles. Its highest point is 1,050 feet above sea level. It was formerly a German possession and is now a Japanese mandate.

By treaty with Japan, ratified by the United States Senate March 1, 1922, the United States acquired

free access to the island of Yap on a footing of entire equality with Japan \* \* \* in all that relates to the existing Yap-Guam cable or of any cable which may hereafter be laid or operated by the United States or its nationals connecting with the island of Yap.

The United States and its nationals \* \* \* have the right to acquire and hold \* \* \* all kinds of property and interests, \* \* \* including lands, buildings \* \* \*

No permit or license shall be required for landing or operating cables. Freedom of entry and exit is granted.

No taxes, port, harbor, or landing charges or exactions of any nature whatsoever shall be levied either with respect to the operation of cables or radio stations, or with respect to property, persons, or vessels.

#### EXTRATERRITORIAL HOLDINGS.

Under the commonly accepted principles of international law diplomatic representatives are immune from the criminal and civil jurisdiction of the country of their sojourn, and this immunity is, generally speaking, extended to their dwellings and the archives of the missions. The official residences of envoys are "in a sense and for some points only considered as though they were outside of the territory of the receiving States."<sup>78</sup> "These can not be entered, searched, or detained under process of local law or by local authorities"<sup>79</sup> unless with the consent of the envoy.

The diplomatic missions of the United States in China, Cuba, Japan, Morocco, Panama, Salvador, Siam, and Turkey occupy build-

<sup>77</sup> Malloy, W. M., op. cit., vol. 2, p. 1781.

<sup>78</sup> Oppenheim, L., International law, a treatise, vol. 1, p. 443.

<sup>79</sup> Moore, J. B., op. cit., vol. 4, p. 646.

ings owned by this Government, and funds have been appropriated by Congress for the purchase of others in Chile (1920), Costa Rica (1917), and Mexico (1914).

Similar rules apply to men-of-war, which, when sailing or at anchor in foreign waters, are subject only to the laws of the nations whose flags they fly.

#### TERRITORIAL WATERS.

"Territorial waters" is the term applied to the part of the open sea over which a bordering nation may claim jurisdiction for its own protection. It is generally conceded that jurisdiction over a belt of water along the coast 1 marine league (about  $3\frac{1}{2}$  statute miles) wide, measured from the low-water line, may be thus claimed, but the passage of neutral vessels engaged in peaceful pursuits through this area may not be forbidden.

The general rule regarding territorial waters has many exceptions and "now has no legal basis except the so-called 'common consent of nations.'"<sup>80</sup>

Bays or arms of the sea, if in large part surrounded by the territory of a single nation, are usually considered entirely within the jurisdiction of that nation, even though the entrances are more than 2 leagues across.

The Hague tribunal in September, 1910, decided in the special case submitted to it (regarding fisheries in the North Atlantic) that for bays contiguous to the territory of the Dominion of Canada

the 3 marine miles are to be measured from a straight line drawn across the body of water at the place where it ceases to have the configuration and characteristics of a bay. At all other places the 3 marine miles are to be measured following the sinuosities of the coast.<sup>81</sup>

These rules do not now apply to other localities but may be considered as precedents for future agreements.

### THE PUBLIC DOMAIN AND THE CHANGES MADE THEREIN.

#### CESSIONS BY THE STATES.

In 1776, when the thirteen colonies declared their independence of England, many of them possessed unoccupied territory, much of which was entirely detached and lay west of the Appalachian Mountains. Thus Georgia included the territory from its present eastern limits westward to Mississippi River. North Carolina pos-

<sup>80</sup> Encyclopaedia Britannica, 11th ed., vol. 14, p. 698.

<sup>81</sup> Charles, Garfield, *Treaties, conventions, etc., between the United States of America and other powers*: 62d Cong., 3d sess., S. Doc. 1063, p. 69, 1913.

sessed a strip extending from latitude  $35^{\circ}$  to  $36^{\circ} 30'$  approximately and running westward to the Mississippi, which included the area of the present State of Tennessee. In like manner Virginia possessed what is now Kentucky, and a number of States, including Pennsylvania, New York, Massachusetts, Connecticut, and Virginia, laid claims to areas in what was afterward known as the Territory northwest of the River Ohio, a region now contained mainly in the States of Ohio, Indiana, Illinois, Michigan, and Wisconsin. These claims were to a greater or less extent conflicting. Authority over some areas was claimed by several States, and most of the boundary lines were very ill-defined.

The ownership of these western lands by individual States was opposed by those States that did not share in their possession mainly on the ground that the resources of the General Government, to which all contributed, should not be used for the protection and development of this region, the advantages of which would inure to the benefit of only a favored few.

Moved by these arguments, as well as by the conflicting character of the claims, which must inevitably lead to trouble among the States, Congress passed, on October 30, 1779, the following act:

Whereas the appropriation of the vacant lands by the several States during the continuance of the war will, in the opinion of Congress, be attended with great mischiefs: Therefore,

*Resolved*, That it be earnestly recommended to the State of Virginia to reconsider their late act of assembly for opening their land office; and that it be recommended to the said State, and all other States similarly circumstanced, to forbear settling or issuing warrants for unappropriated lands, or granting the same during the continuance of the present war.

This resolution was transmitted to the different States. The first to respond to it by the transfer of her territory to the General Government was New York, whose example was followed by the other States. These transfers were the origin of the public domain. The cessions were made on the dates given below:

New York, March 1, 1781.

Virginia, March 1, 1784, and amendment of December 30, 1788. The deed of cession by Virginia gives no limits further than to specify that the lands transferred include only those lying northwest of Ohio River.

Massachusetts, April 19, 1785.

Connecticut, September 13, 1786. The Connecticut act of cession reserved an area in the northeastern part of Ohio, known as the Western Reserve. On May 30, 1800, Connecticut gave to the United jurisdiction over this area, but without giving up its property rights in it.

South Carolina, August 9, 1787.

North Carolina, February 25, 1790.

Georgia, April 24, 1802.

The following paragraph from the deed of cession by New York defines the limits of its grant to the General Government: <sup>82</sup>

Now, therefore, know ye, that we, the said James Duane, William Floyd, and Alexander M'Dougall, by virtue of the power and authority, and in the execution of the trust reposed in us, as aforesaid, have judged it expedient to limit and restrict, and we do, by these presents, for and in behalf of the said State of New York, limit and restrict the boundaries of the said State in the western parts thereof, with respect to the jurisdiction, as well as the right or pre-emption of soil, by the lines and in the form following, that is to say: A line from the northeast corner of the State of Pennsylvania, along the north bounds thereof to its northwest corner, continued due west until it shall be intersected by a meridian line, to be drawn from the forty-fifth degree of north latitude, through the most westerly bent or inclination of Lake Ontario; thence by the said meridian line to the forty-fifth degree of north latitude; and thence by the said forty-fifth degree of north latitude; but, if on experiment, the above-described meridian line shall not comprehend twenty miles due west from the most westerly bent or inclination of the river or strait of Niagara, then we do, by these presents, in the name of the people, and for and on behalf of the State of New York, and by virtue of the authority aforesaid, limit and restrict the boundaries of the said State in the western parts thereof, with respect to jurisdiction, as well as the right of pre-emption of soil, by the lines and in the manner following, that is to say: a line from the northeast corner of the State of Pennsylvania, along the north bounds thereof, to its northwest corner, continued due west until it shall be intersected by a meridian line, to be drawn from the forty-fifth degree of north latitude, through a point twenty miles due west from the most westerly bent or inclination of the river or strait Niagara; thence by the said meridian line to the forty-fifth degree of north latitude, and thence by the said forty-fifth degree of north latitude: \* \* \*

The following paragraph from the deed of cession by Massachusetts gives the limits of the area ceded: <sup>83</sup>

[We] do, by these presents assign, transfer, quitclaim, cede, and convey to the United States of America, for their benefit, Massachusetts, inclusive, all right, title, and estate of and in, as well the soil as the jurisdiction, which the said Commonwealth hath to the territory or tract of country within the limits of the Massachusetts charter situate and lying west of the following line, that is to say, a meridian line to be drawn from the forty-fifth degree of north latitude through the westerly bent or inclination of Lake Ontario, thence by the said meridian line to the most southerly side line of the territory contained in the Massachusetts charter; but if on experiment the above-described meridian line shall not comprehend twenty miles due west from the most westerly bent or inclination of the river or strait of Niagara, then we do by these presents, by virtue of the power and authority aforesaid, in the name and on behalf of

<sup>82</sup> Donaldson, Thomas, *The public domain, its history with statistics*, p. 67, Washington, Public Land Commission, 1884.

<sup>83</sup> *Idem*, pp. 71-72.

the said Commonwealth of Massachusetts, transfer, quitclaim, cede, and convey to the United States of America, for their benefit, Massachusetts inclusive, all right, title, and estate of and in as well the soil as the jurisdiction, which the said Commonwealth hath to the territory or tract of country within the limits of the Massachusetts charter, situate and lying west of the following line, that is to say, a meridian line to be drawn from the forty-fifth degree of north latitude through a point twenty miles due west from the most westerly bent or inclination of the river or strait of Niagara; thence by the said meridian line to the most southerly side line of the territory contained in the Massachusetts charter aforesaid, \* \* \*

The following clause from the act of the Legislature of Connecticut, authorizing the cession, defines its limits: <sup>84</sup>

*Be it enacted* \* \* \* That the delegates of this State, or any two of them, who shall be attending the Congress of the United States, be, and they are hereby, directed, authorized, and fully empowered, in the name and behalf of this State, to make, execute, and deliver, under their hands and seals, an ample deed of release and cession of all the right, title, interest, jurisdiction, and claim of the State of Connecticut to certain western lands, beginning at the completion of the forty-first degree of north latitude, one hundred and twenty miles west of the western boundary line of the Commonwealth of Pennsylvania, as now claimed by said Commonwealth, and from thence by a line drawn north, parallel to and one hundred and twenty miles west of the said west line of Pennsylvania, and to continue north until it comes to forty-two degrees and two minutes north latitude. Whereby all the right, title, interest, jurisdiction, and claim of the State of Connecticut, to the lands lying west of said line to be drawn as aforementioned, one hundred and twenty miles west of the western boundary line of the Commonwealth of Pennsylvania, as now claimed by said Commonwealth, shall be included, released, and ceded to the United States in Congress assembled, for the common use and benefit of the said States, Connecticut inclusive.

Connecticut reserved by this deed both the title and jurisdiction over a tract of her western lands lying between the western boundary of Pennsylvania and the then eastern boundary of her cession, comprising a strip 120 miles long and of irregular width lying between parallels 41° and 42° 2' N. (the northeastern part of the present State of Ohio) and known as the "Western Reserve" of Connecticut in Ohio. Connecticut by act of legislature in October, 1797, tendered a release of jurisdiction over this tract to the United States, which Congress accepted April 28, 1800, and Connecticut confirmed May 30, 1800. A portion of this area, lying in the present Ohio counties of Erie, Huron, and Ottawa, was known as the "Fire lands" from the fact that the lands were donated by Connecticut for the use of citizens of Danbury and other places for losses by fire and raids by British troops during the Revolution.

The cession of South Carolina was described as follows: <sup>85</sup>

all the territory or tract of country included within the river Mississippi and a line beginning at that part of the said river which is intersected by the

<sup>84</sup> Donaldson, Thomas, op. cit., p. 73.

<sup>85</sup> Idem, p. 76.



southern boundary line of the State of North Carolina, and continuing along the said boundary line until it intersects the ridge or chain of mountains which divides the eastern from the western waters, then to be continued along the top of said ridge of mountains until it intersects a line to be drawn due west from the head of the southern branch of Tugoloo River to the said mountains; and thence to run a due west course to the river Mississippi.

The State of North Carolina ceded<sup>86</sup>

The lands situated within the chartered limits of this State, west of a line beginning on the extreme height of the Stone Mountain, at the place where the Virginia line intersects it; running thence along the extreme height of the said mountain, to the place where the Wataugo River breaks through it; thence a direct course to the top of the Yellow Mountain where Bright's road crosses the same; thence along the ridge of the said mountain, between the waters of Doe River and the waters of Rock Creek, to the place where the road crosses the Iron Mountain; from thence along the extreme height of the said mountain to where Nolichucky River runs through the same; thence to the top of the Bald Mountain; thence along the extreme height of the said mountain, to the Painted Rock, on French Broad River; thence along the highest ridge of the said mountain, to the place where it is called the Great Iron or Smoaky Mountain; thence along the extreme height of the said mountain, to the place where it is called the Unicoy or Unaka Mountain, between the Indian towns of Cowee and Old Chota; thence along the main ridge of the said mountain to the southern boundary of this State.

It will be noted that the above description of the eastern boundary of her ceded possessions agrees in general terms with the description of the western boundary of North Carolina, as given on page 132.

The articles of cession by Georgia describe the area ceded as follows:<sup>87</sup>

the lands situated within the boundaries of the United States, south of the State of Tennessee, and west of a line beginning on the western bank of the Chatahouchee River, where the same crosses the boundary line between the United States and Spain; running thence up the said river Chatahouchee, and along the western bank thereof to the great bend thereof, next above the place where a certain creek or river, called "Uchee" (being the first considerable stream on the western side, above the Cussetas and Coweta towns), empties into the said Chatahouchee River; thence in a direct line to Nickajack, on the Tennessee River; thence crossing the said last-mentioned river, and thence running up the said Tennessee River, and along the western bank thereof, to the southern boundary line of the State of Tennessee.

Of the area conveyed by these cessions to the General Government the part lying north of the Ohio was afterward erected into the "territory northwest of the River Ohio," and the balance, lying south of that river, was known as the "territory south of the River Ohio."

The United States by act of Congress of September 9, 1850, purchased from the State of Texas her claim to about 16,700 square miles

<sup>86</sup> Donaldson, Thomas, *op. cit.*, p. 77; 1 Stat. L. 106.

<sup>87</sup> Donaldson, Thomas, *op. cit.*, p. 80.

of land which Texas had when admitted to the Union. This land is now included in the States of Kansas, Colorado, New Mexico, and Oklahoma. (See fig. 17.)

#### TERRITORY NORTHWEST OF OHIO RIVER.

The territory north of the Ohio was bounded on the west by the Mississippi and a line running north from its source to the international boundary, on the north by the boundary line between the United States and the British possessions, on the east by the Pennsylvania and New York State lines, and on the south by Ohio River. (See fig. 9.) It comprised a land area of approximately 275,000 square miles. (See fig. 8.) It was made up of claims of individual States as follows:<sup>88</sup>

1. Virginia claims, which consisted of all the territory west of Pennsylvania and north of the Ohio to the forty-first parallel of north latitude, and above that her claim by capture as far as the northern limits of the land under the Crown which had been subject to the jurisdiction of the Provinces of Quebec and as far as Lakes Michigan and Huron.

2. The claim of Connecticut, which extended from the forty-first parallel northward to the parallel of  $42^{\circ} 2'$  and from the west line of Pennsylvania to Mississippi River.

3. The claim of Massachusetts, which extended from the north line of the Connecticut claim above noted to latitude  $43^{\circ} 43' 12''$  N. and from the western boundary of New York to the Mississippi.

4. The belt or zone lying north of the Massachusetts claim, extending thence to the Canada line and west to Mississippi River, obtained from Great Britain by the treaty of peace of September 3, 1783.

5. At the time of the cession by the State of Virginia both Massachusetts and New York claimed the Erie purchase of about 316 square miles, which was subsequently bought by Pennsylvania and added to that State (p. 109).

From this territory were formed the States of Ohio, Indiana, Illinois, Michigan, and Wisconsin, that part of Minnesota east of Mississippi River, and the northwest corner of Pennsylvania.

On July 13, 1787, a bill for its provisional division into not less than three nor more than five States was passed by Congress. In this bill the limits of the proposed States were defined, corresponding in their north and south lines to the present boundaries of Ohio,

<sup>88</sup> Donaldson, Thomas, *op. cit.*, p. 161.

Illinois, and Indiana. The following extract gives the text of the clause defining these boundaries:<sup>89</sup>

AN ORDINANCE FOR THE GOVERNMENT OF THE TERRITORY OF THE UNITED STATES  
NORTHWEST OF THE RIVER OHIO.

ARTICLE 5. There shall be formed in the said territory, not less than three nor more than five States; and the boundaries of the States, as soon as Virginia shall alter her act of cession, and consent to the same, shall become fixed and established as follows, to wit: the western State in said territory shall be bounded by the Mississippi, the Ohio, and the Wabash rivers; a direct line drawn from the Wabash and Post Vincents due north to the territorial line between the United States and Canada; and by the said territorial line to the Lake of the Woods and Mississippi. The middle State shall be bounded by the said direct line, the Wabash, from Post Vincents to the Ohio, by the Ohio, by a direct line drawn due north from the mouth of the Great Miami to the said territorial line, and by the said territorial line. The eastern State shall be bounded by the last-mentioned direct line, the Ohio, Pennsylvania, and the said territorial line: *Provided, however*, And it is further understood and declared, that the boundaries of these three States shall be subject so far to be altered, that, if Congress shall hereafter find it expedient, they shall have authority to form one or two States in that part of the said territory which lies north of an east and west line drawn through the southerly bend or extreme of Lake Michigan.

Apparently this ordinance was not put in force until a provisional government was instituted by the appointment of a governor and secretary on February 1, 1788.

By act of May 7, 1800, Congress divided the "territory northwest of the Ohio" into two separate governments and ordered

that all that part of the territory of the United States northwest of the Ohio river, which lies to the westward of a line beginning at the Ohio, opposite to the mouth of Kentucky river, and running thence to Fort Recovery, and thence north until it shall intersect the territorial line between the United States and Canada, shall, for the purposes of temporary government constitute a separate territory, and be called the Indiana Territory.

The eastern portion was called the "territory northwest of the River Ohio," and most of it was admitted to the Union in 1803<sup>90</sup> as the State of Ohio. The small remaining part was added to Indiana Territory. (See fig. 14.)

In 1805 all that part of Indiana Territory lying north of a parallel drawn through the most southerly bend of Lake Michigan and east of a line drawn from the same point through the middle of Lake Michigan and north to the Canadian line became the Territory of Michigan (see fig. 15), but the boundary between these Territories was subsequently very much changed.

<sup>89</sup> Donaldson, Thomas, op. cit., p. 155. For a plan with maps, proposed by a committee of which Jefferson was chairman, for the subdivision of the territory northwest of the Ohio, which was practically adopted by Congress in 1784, see Wisconsin Hist. Coll., vol. 2, p. 452, Madison, 1888. See also Smith, W. H., The St. Clair papers, vol. 2, p. 603, Cincinnati, 1882; Force, Peter, The ordinance of 1787 and its history.

<sup>90</sup> There is some uncertainty regarding this date. See footnote 53, p. 165.

By act of February 3, 1809, Indiana Territory was again divided, and the Territory of Illinois was created from the part lying west of Wabash River and a meridian running through the city of Vincennes, extending thence to the Canada line.

On April 19, 1816, Indiana was admitted to the Union as a State, with its boundaries defined as at present, and on April 18, 1818, Illinois was likewise admitted.

The act of June 28, 1834, added to Michigan Territory a portion of the Missouri River drainage basin as far west as White Earth River and north to the forty-ninth parallel and included for the first time a part of the drainage basin of Red River, south of the forty-ninth parallel, under a Territorial government. This addition to Michigan included also a small part of the Louisiana Purchase. (See p. 174 and fig. 15.)

Wisconsin Territory was formed in 1836 from the portion of Michigan Territory west of the present State of Michigan. On January 26, 1837, Michigan was admitted into the Union, with its present boundaries. On June 12, 1838, all that portion of Wisconsin Territory lying west of Mississippi River and a line drawn due north from its source to the international boundary was made into the Territory of Iowa, and in 1848 Wisconsin was admitted as a State, with its boundaries as at present defined.

The admission of Wisconsin appears to have left the area which is now the northeastern part of Minnesota, lying east of the Mississippi and a line drawn due north from its source, without any government until the formation of Minnesota Territory, in 1849.

#### TERRITORY SOUTH OF OHIO RIVER.

The "territory south of the River Ohio," the government of which was provided for by act of Congress approved May 26, 1790, was bounded on the north by the present northern boundary of Tennessee, on the south by the thirty-first parallel of latitude, on the east by the States of North Carolina, South Carolina, and Georgia, and on the west by Mississippi River. The respective cessions from the States that made up this region are as follows:

1. The area ceded by North Carolina was described as extending from  $36^{\circ} 30'$  (since found to be  $36^{\circ} 33'$ ) north latitude southward to  $35^{\circ}$  and from the western boundary line of the present State to Mississippi River. This is now the State of Tennessee.

2. The area ceded by South Carolina formed a belt 12 or 14 miles in width lying south of the thirty-fifth parallel and extending from her western boundary to Mississippi River. It is doubtful whether under the terms of the original charters South Carolina possessed this strip or whether it was included in the possessions of Georgia. (See p. 135.)



3. The area ceded by Georgia comprised most of the territory of the present States of Alabama and Mississippi north of the thirty-first parallel.

Tennessee was admitted as a State in 1796. In 1798 Congress organized as the Territory of Mississippi a small rectangular area, bounded on the west by Mississippi River, on the north by a parallel through the mouth of Yazoo River, on the east by Chattahooche River, and on the south by the thirty-first parallel of north latitude. This area was subsequently enlarged so as to include the whole of what is now Mississippi and Alabama, and a strip along the Gulf coast, which was at that time claimed by Spain. In 1817 the Territory was divided, and the eastern portion was made into Alabama Territory. Subsequently the two Territories were admitted as States.

**LOUISIANA, THE AREAS FORMERLY BELONGING TO MEXICO,  
AND THE OREGON REGION.**

The Louisiana Purchase was effected in 1803. In 1804 the region thus obtained was divided into two parts; the southern was organized as Orleans Territory and the remainder was called the District of Louisiana. The State of Louisiana, comprising most of the Territory of Orleans, was admitted to the Union in 1812, and in the same year it was enlarged by the addition of the area lying between Mississippi and Pearl rivers, in the southeastern part. In the same year the name of the District of Louisiana was changed to Missouri Territory. (See Pl. VII.) In 1819 Arkansas Territory was created, and in 1836 it was admitted as a State. (The State name was spelled with an "s" in place of the final "w.")

In 1821 the State of Missouri was formed from another portion of Missouri Territory, and in 1836 the boundaries of this State were extended to their present limits. In 1834, as stated above, that part of this Territory lying north of the State of Missouri and east of Missouri and White Earth rivers was attached to the Territory of Michigan. (See fig. 15.) In 1836 this portion became part of the then formed Territory of Wisconsin. In 1838 it became part of the Territory of Iowa. In 1846 the State of Iowa was created, and in 1849 the remainder of the Iowa Territory was organized as Minnesota Territory. Minnesota was admitted as a State on May 11, 1858, with its present boundaries.

Indian Territory (unorganized) was set apart by act of June 30, 1834, and described as follows<sup>91</sup> (see fig. 18):

all that part of the United States west of the Mississippi, and not within the States of Missouri and Louisiana, or the Territory of Arkansas \* \* \* shall be taken and deemed to be Indian country.

<sup>91</sup> 4 Stat. L. 729, 733.

Apparently this covered a large part of the area previously designated Missouri Territory, but for judicial control the same act restricted the area to that commonly known as Indian Territory and bounded on the north by the north line of lands assigned to the Osage tribe of Indians, produced east to the State of Missouri; west by the Mexican possessions (one-hundredth meridian); south by Red River; and east by the west line of the Territory of Arkansas, and the State of Missouri.<sup>92</sup>

While the cessions by the States and the Louisiana region were being subdivided Texas was admitted to the Union, and by the treaty of Guadalupe-Hidalgo and the Gadsden Purchase the United States acquired from Mexico the area west of the northern part of Texas and south of the forty-second parallel. In the same period the northern boundary had been established on the forty-ninth parallel to the Pacific Ocean.

Out of the great western region thus acquired were carved the following Territories:

Oregon Territory, formed in 1848, extended from the parallel of 49° north latitude southward to latitude 42° and from the Pacific Ocean east to the summit of the Rocky Mountains. (See fig. 22.)

California was admitted as a State in 1849 with the same limits which it possesses at present.

Utah Territory, formed in 1850 (see fig. 21), extended from the forty-second parallel southward to the thirty-seventh and from the California boundary line eastward to the Rocky Mountains.

New Mexico comprised all the country lying south of Utah to the boundary lines of Texas and Mexico and from the California boundary eastward to the boundary of Texas. (See fig. 19.)

Nebraska Territory, formed from Missouri Territory in 1854, comprised the country from the forty-ninth parallel to the fortieth and from Missouri and White Earth rivers west to the summit of the Rocky Mountains. (See fig. 17.)

Kansas Territory, formed by the same act as Nebraska, comprised the country extending from Missouri west to the boundary of New Mexico and Utah and from the south boundary of Nebraska to the thirty-seventh parallel.

Washington Territory was formed in 1853 from a part of Oregon, its southern boundary being Columbia River and the parallel of 46° north latitude, and its east line being the summit of the Rocky Mountains. (See fig. 22.)

Oregon was admitted as a State in 1859, with its boundaries as at present established. The portion cut off from Oregon Territory was placed under the Territorial government of Washington.

<sup>92</sup> Royce, C. C., *Indian land cessions in the United States*: Bur. Am. Ethnology Eighteenth Ann. Rept., pt. 2, Washington, 1900; 56th Cong., 1st sess., H. Doc. 736, 500 pp., 67 colored maps.

Dakota Territory, formed in 1861, comprised all that region included in the present States of North Dakota and South Dakota and thence westward to the summit of the Rocky Mountains. (See fig. 16.)

The Territory of Nevada was organized from the western portion of the Territory of Utah in 1861. (See fig. 21.) As originally constituted, its eastern line was the meridian of  $39^{\circ}$  of longitude west from Washington, and its southern boundary was the parallel of  $37^{\circ}$  of latitude. It was admitted as a State in 1864, when its eastern boundary was made the thirty-eighth degree of longitude (approximately  $115^{\circ} 03'$  west from Greenwich). In 1866, by act of Congress, the eastern boundary was moved one degree still farther east and placed upon the thirty-seventh degree of longitude west from Washington, and the triangular portion contained between the former southern boundary, the boundary of California, Colorado River, and the meridian of  $37^{\circ}$  of longitude was added, thus giving the State its present limits.

Colorado Territory was formed in 1861, with the limits of the present State. It was admitted as a State in 1876.

The Territory of Arizona, formed in 1863, included that portion of New Mexico lying west of the thirty-second meridian west of Washington.

Idaho was formed in 1863 from parts of Dakota and Washington Territories. As originally constituted it included all the territory lying east of the present eastern limits of Oregon and Washington to the twenty-seventh degree of longitude west of Washington. Its southern boundary was the northern boundary of Colorado and Utah—that is, the forty-first and forty-second parallels of latitude. From this Territory was detached in 1864 the Territory of Montana, with nearly the limits of the present State, and in 1868 the Territory of Wyoming; these changes reduced Idaho to its present dimensions.

Oklahoma Territory, organized in 1890 from a part of the Indian Territory and the public-land strip north of Texas, when admitted as a State in 1907 included the Indian Territory also.<sup>93</sup> (See fig. 18.)

## THE BOUNDARY LINES OF THE STATES.

### MAINE.<sup>93a</sup>

The first charter that related to the area forming the present State of Maine (fig. 2) is that granted by Henry IV of France to Pierre du

<sup>93</sup> For titles of manuscripts and published papers relating to the Territories, see Calendar of papers in Washington archives relating to the Territories of the United States, Carnegie Inst. Washington, 1911.

<sup>93a</sup> A general discussion of the boundaries of the New England States is given in a recent article by Sumner W. Cushing (Assoc. Am. Geographers Annals, vol. 10, 1920).

Gast, Sieur de Monts, in 1603, known as the charter of Acadia, which embraced the whole of North America between the fortieth and forty-sixth degrees of north latitude. Under this charter several exploring expeditions along the coast were made in 1604, 1605, and 1606 (see Pl. II); and in 1606 it was decided to make a permanent settlement at Port Royal, now Annapolis, Nova Scotia. No attempts were made under this charter to plant colonies within the limits of the present State of Maine.<sup>94</sup>

By the first charter of Virginia (see p. 121), granted by James I in 1606, the lands along the coast of North America between the thirty-fourth and forty-fifth degrees of north latitude were given to two companies, to one of which, the Plymouth Co., was assigned that part of North America including the coast of New England. The first colony in Maine was planted on the peninsula of Sabino, at the mouth of Kennebec River, now Hunnewell Point, on August 19, 1607, O. S., by George Popham.

James I in 1620 granted a charter to the Plymouth Co., in which may be found the following words: <sup>95</sup>

Wee therefore, \* \* \* Do \* \* \* grant, ordaine and establish, that all that Circuit, Continent, Precincts, and Limitts in America, lying and being in Breadth from Fourty Degrees of Northerly Latitude, from the Equinoctiall Line, to Forty-eight Degrees of the said Northerly Latitude, and in length by all the Breadth aforesaid throughout the Maine Land, from Sea to Sea, with all the Seas, Rivers, Islands, Creekes, Inletts, Ports, and Havens, within the Degrees, Precincts, and Limitts of the said Latitude and Longitude, shall be the Limitts, and Bounds, and Precincts of the second Collony: And to the End that the said Territoryes may forever hereafter be more particularly and certainly known and distinguished, our Will and Pleasure is, that the same shall from henceforth be nominated, termed, and called by the Name of New-England, in America.

Under a grant given in 1621 William Alexander, Earl of Stirling, claimed that he was entitled to land on the coast of Maine which had been granted to the Plymouth Co., and by direction of James I that company issued a patent to him <sup>96</sup>

for a tract of the mainland of New England, beginning at Saint Croix and from thence extending along the sea-coast to Pemaquid and the river Kennebeck.

The heirs of the Earl of Stirling sold this tract to the Duke of York in 1663.

In 1622 Capt. John Mason and Sir Ferdinando Gorges obtained from the council of New England (Plymouth) a grant of lands lying between Merrimac and Sagadahock [Kennebec] rivers and extend-

<sup>94</sup> Poore, B. P., *Charters and constitutions, Federal and State*, p. 771. Thorpe, F. N., *The Federal and State constitutions*: 59th Cong., 2d sess., H. Doc. 357, vol. 3, p. 1619, 1909.

<sup>95</sup> Thorpe, F. N., *op. cit.*, p. 1829.

<sup>96</sup> *Idem*, p. 1621.



ing back to the river and lakes of Canada. This tract was named the Province of Maine and included New Hampshire and the western part of Maine. Mason and Gorges, in 1629, by mutual consent divided their territory in two by the river Piscataqua. That part on the east of this river was relinquished to Gorges, who called it Maine.

The charter of the Plymouth Co. was surrendered to the King in the year 1635.

King Charles I, in 1639, granted a charter to Sir Ferdinando Gorges which virtually confirmed the patent given to him by the Plymouth Co. in 1622. The following extract from that charter defines the boundaries:<sup>97</sup>

All that Parte Purparte and Porcon of the Mayne Lande of New England aforesaid beginning att the entrance of Pascataway Harbor and soe to passe upp the same into the River of Newichewanocke and through the same unto the furthest heade thereof and from thence Northwestwards till one hundred and twenty miles bee finished and from Pascataway Harbor mouth aforesaid North-eastwards along the Sea Coasts to Sagadahocke and upp the River thereof to Kynybequy River and through the same into the heade thereof and into the Lande Northwestwards untill one hundred and twenty myles bee ended being accounted from the mouth of Sagadahocke and from the period of one hundred and twenty myles aforesaid to crosse over Lande to the one hundred and twenty myles end formerly reckoned upp into the Lande from Pascataway Harbor through Newichewanocke River and also the Northe halfe of the Isles of Shoales togeather with the Isles of Capawock and Nawtican neere Cape Cod as alsoe all the Islands and Ilets lyeinge within five leagues of the Mayne all alonge the aforesaide Coasts betweene the aforesaid River of Pascataway and Sagadahocke with all the Creekes Havens and Harbors thereunto belonginge and the Revercon and Revercons Remaynder and Remaynders of all and singular the said Landes Rivers and Premises All which said Part Purpart or Porcon of the Mayne Lande and all and every the Premisses herein before named Wee Doe for us our heires and successors create and incorporate into One Province or Countie

And Wee Doe name ordeyne and appoynt that the porcon of the Mayne Lande and Premises aforesaid shall forever hereafter bee called and named The Province or Countie of Mayne

In 1664 Charles II granted certain islands on the coast and a large territory west of Connecticut River (see New York, p. 94, for the boundaries) to the Duke of York, who had the previous year purchased a portion of the present State of Maine from the heirs of the Earl of Stirling; the latter area was for a time called Pemaquid.

In 1674 Charles II made a new grant to the Duke of York in substantially the same terms as that of 1664, including as before a portion of Maine. (See New York, pp. 94-95.)

In the year 1677 Ferdinando Gorges, a grandson of Sir Ferdinando Gorges, sold and gave a deed of the Province of Maine to John

<sup>97</sup> Thorpe, F. N., op. cit., p. 1626.

Ushur, a merchant of Boston, for £1,250. In the same year Ushur gave a deed of the same territory to the governor and company of Massachusetts Bay, who had received a grant from the council of Plymouth in 1628, confirmed by the King in 1629.

In 1686 Pemaquid and its dependencies, forming Cornwall County, under the jurisdiction of New York, were annexed to the New England government by a royal order dated September 19, 1686.<sup>98</sup>

The charter of Massachusetts Bay of 1629 having been canceled in 1684, William and Mary in 1691 granted a new one incorporating the Provinces of Maine and Acadia, or Nova Scotia, with the colonies of Massachusetts Bay and Plymouth, into one royal Province by the name of the Province of the Massachusetts Bay in New England.

The right of government acquired in 1691 over the district of Maine was exercised by Massachusetts until 1819, when measures were taken to admit Maine as an independent State,<sup>99</sup> and Congress, by act approved March 3, 1820,<sup>1</sup> effective March 15, 1820, admitted Maine to the Union.

The north and east boundaries were fixed by the United States and Great Britain. (See pp. 8, 12-18.) The geographic position of the extreme north point of Maine, which falls in the middle of St. Francis River, is latitude 47° 27' 35.8'' N., longitude 69° 13' 30.4'' W.<sup>2</sup>

The western boundary was for a long time a source of contention between Maine and New Hampshire. In 1731 commissioners from New Hampshire and from Massachusetts, who had been appointed to fix the boundary, met but were unable to agree. New Hampshire appealed to the King, and the King ordered that a settlement should be made by commissioners from the neighboring Provinces. The board met at Hampton in 1737. The commissioners fixed on substantially the present boundary, wording their report as follows:

Beginning at the entrance of Pascataqua Harbor, and so to pass up the same to the River Newhichawack, and thro' the same into the furthest head thereof, and thence run north 2 degrees west till 120 miles were finished, from the mouth of Pascataqua Harbor, or until it meets with His Majesty's other governments.\*

This was confirmed by the King August 5, 1740.

Difficulties having again arisen about the boundary between Maine and New Hampshire, commissioners were appointed in 1827 from each State to determine it. The line agreed to by the commissioners in their report dated November 13, 1828, is thus described:<sup>4</sup>

The Report of the Commissioners appointed by his Majesty's order in Council of February 22nd, 1735, and confirmed by his order of the 5th of August, 1740, having established,

<sup>98</sup> Maine Hist. Soc. Col., vol. 5.

<sup>99</sup> See Massachusetts Legislature acts of June 19, 1819, and Feb. 25, 1820.

<sup>1</sup> 3 Stat. L., 544.

<sup>2</sup> International Boundary Commission, letter of Oct. 3, 1919.

<sup>3</sup> New Hampshire Hist. Coll., vol. 2.

<sup>4</sup> Maine, Resolves of the Ninth Legislature, 1828-29, pp. 39-43.

"That the dividing line shall pass up through the mouth of Pascataqua Harbor, and up the middle of the river of Newichwannock, part of which is now called the Salmons falls, and through the middle of the same to the farthest head thereof, &c.," and "that the dividing line shall part the Isle of *Sholes*, and run through the middle of the Harbor, between the Islands to the sea on the southerly side," &c. We have not deemed it necessary to commence our survey until we arrived north, at the head of Salmon falls river; which was determined by Bryant, at his survey in 1740, to be at the outlet of Eastpond, between the towns of Wakefield and Shapleigh. From that point we have surveyed and marked the line as follows, viz: We commenced at the Bryant rock, known as such by tradition, which is a rock in the middle of Salmon falls river, at the outlet of Eastpond, about six feet in length, three feet in breadth, three feet in depth, and two feet under the surface of the water, as the dam was at the time of the survey, to wit, October 1, 1827; said stone bears south seventy-one degrees west, three rods and eight links from a large rock on the eastern bank, marked "1827," and bears also from a rock near the mill dam (marked "H") north nineteen degrees and thirty minutes west, and distant twelve rods and twenty-one links. At this point the variation of the needle was ascertained to be *nine degrees* west. From the above stone the line is north seven degrees and forty-one minutes east, one hundred and seventy eight rods to Eastpond, and crossing the pond three hundred and eleven rods in width, to a stone Monument which we erected up on the bank, about three and an half feet high above the surface of the ground, marked N on the west side and M on the east side, which description applies to all the stone monuments herein-after mentioned, unless they are otherwise particularly described: thence the same course, two hundred and twenty five rods, to Fox ridge and to a stone monument, which is placed upon the north side of the road that leads from Wakefield to Shapleigh; thence two hundred rods to Balch's pond—across the pond, one hundred and three and half rods—across a peninsula thirty six rods—across a cove, fifty one rods and seventeen links, across a second peninsula, forty-eight rods; across a second cove, twenty seven rods ten links; thence three hundred and seventy rods to the road leading from Newfield to Wakefield and a stone monument, erected on the north side of the same, near Campnell's house; thence north six degrees and ten minutes east, five hundred and ninety rods, to the line of Parsonfield, to a stone monument with additional mark "1828." At this point the variation of the needle was found to be nine degrees fifteen minutes west. Thence same course five hundred and eleven rods, crossing the end of Province pond to a stone monument on the Parsonfield road, near the house of James Andrews, also with additional mark "1828;" thence north eight degrees and thirty-eight minutes east, two hundred and eight rods, to the old corner-stone of Effingham, about two feet above the ground, and not marked; thence north eight degrees, fifty-five minutes east, two hundred and seventy seven rods, to a large round stone about three feet diameter and two feet high, marked N and M, by the road upon Towle's Hill; thence north seven degrees fifty five minutes east, six hundred and thirty one rods to a stone monument, on the road leading from Parsonfield to Effingham. At this point the variation of the needle was found to be nine degrees thirty minutes west; thence north five degrees two minutes east, seven hundred thirty-four rods to a pine stump, upon a small island in Ossipee river at the foot of the falls; thence north ten degrees east, thirty rods, to a stone monument on the north side of the new road from Porter to Effingham; thence the same course, five hundred fifty eight rods, to the top of Bald Mountain; thence same course, three hundred sixteen rods, to the top of Bickford Mountain; thence same

course one hundred and ninety three rods, to a stone monument on the north side of the road leading from Porter to Eaton. At this point the variation of the needle was found to be nine degrees forty five minutes west; thence north eight degrees five minutes east, seven hundred and forty-four rods, to Cragged Mountain; thence same course, sixty seven rods, to the corner of Eaton; thence same course, seven hundred eighty seven and an half rods, to the corner of Conway; thence same course, six hundred ten and an half rods to a stone monument on the south side of the road leading from Brownfield to Conway centre; thence north eight degrees east, eight hundred seventy one rods, to a stone monument on the south side of the road leading from Fryeburg village to Conway—at this point the variation of the needle was found to be ten degrees west; thence same course, four rods, to a stone monument on the north side of the same road; thence north eight degrees fifteen minutes east, one hundred two rods, to Saco river; thence same course eighteen rods, across said river; thence same course six hundred forty-four rods to a stone monument on the road leading to Fryeburg village, on the north side of the river. This monument is marked as before described and is about eight feet high above the ground; thence same course one hundred forty-two rods to Ballard's Mill Pond; thence same course sixty one rods six links across said pond; thence same course three hundred forty four rods to a stone monument on the east side of Chatham road; thence same course six hundred ninety rods to Kimball's Pond; thence same course one hundred sixty-six rods across said pond; thence same course sixty rods to a stone monument on the meadow.

From Kimball's Pond the line was extended northward for about 77 miles on a general course which has since been found to bear about  $2^{\circ}$  west of true north. The last mark on the line was a large yellow-birch tree on the divide between St. Lawrence River and the rivers running south. The total distance, as measured, from this tree to Salmon River Falls was 112 miles 233 rods.

The Legislature of Maine approved the commissioners' report February 28, 1829, and requested the governor to issue his proclamation accordingly. The same action was taken by the Legislature of New Hampshire July 1, 1829.

Between 1828 and 1858 considerable parts of the almost unbroken forests through which the line of 1827-28 was marked were cleared. Forest fires swept many large tracts of this territory, and as a consequence the marks of the 1827-28 survey for a distance of nearly 80 miles—most of which were blazed trees, only seven stone posts having been set in this distance—were obliterated, so that there remained scarcely a vestige of the original line. The adjoining lands having become valuable and litigation being imminent, the legislatures of the two States in 1858 provided for another survey from Fryeburg to the Canada line, which was made in the same year. The line as then surveyed is as follows:

The point commenced at is an iron post situated on the line run in accordance with the "Treaty of Washington, of August 9, 1842," as the boundary between the United States and the province of Canada, at the corners of the States of Maine and New Hampshire. On the south face of said post



are the words "Albert Smith, U. S. Comssr.;" on the north face, "Lt. Col. I. B. B. Eastcourt, H. B. M. Comssr.;" on the west face, "Boundary, Aug. 9, 1842"; on the east face, "Treaty of Washington." To the marks we added, on the southern half of the west face, "H. O. Kent." A large flat stone was placed on the southern face of the monument, and marked "1858—N. H., Me.," on either side of a line cut in said stone bearing the direction of the State's line, viz, south, eight degrees west. From this point the line is south eight degrees west, seventeen rods seven links to a large yellow birch stub, the northern terminus of the former survey.

The iron post above referred to is called the Crown Monument and is mark No. 475 of the International Boundary Survey of 1915. Its geographic position is latitude  $45^{\circ} 18' 19.99''$ , longitude  $71^{\circ} 05' 04.40''$ . The line was run south to an old monument 60 rods north of Kimball's Pond.<sup>5</sup>

In 1874 the boundary line between Maine and New Hampshire was again surveyed.<sup>6</sup>

#### NEW HAMPSHIRE.

The first charter of Virginia, granted in 1606 (see p. 121), included the territory of the present State of New Hampshire, as did the charter of New England, granted in 1620 (see p. 59), and the grant to Capt. John Mason and Sir Ferdinando Gorges of 1622 (see pp. 59-60).

The president and council of New England made a grant to Capt. John Mason in 1629, in which the boundaries were given as follows:<sup>7</sup>

All y<sup>e</sup> part of y<sup>e</sup> Maine land in New England lying upon y<sup>e</sup> sea Coaste beginning from y<sup>e</sup> Middle part of Merrimack River & from thence to proceed Northwards along y<sup>e</sup> Sea coaste to passcattaway river & soe forwards up w<sup>th</sup> in y<sup>e</sup> s<sup>d</sup> river & to y<sup>e</sup> furthest head thereof & from thence Northwestwards untill Threescore miles be finished from y<sup>e</sup> first entrance of passcattaway river & also from Merrimacke through y<sup>e</sup> s<sup>d</sup> River & to y<sup>e</sup> furthest head thereof & soe forward up into y<sup>e</sup> land Westwards untill Threescore miles be finished and from thence to cross over land to y<sup>e</sup> Threescore miles end accounted from passacattaway river together w<sup>th</sup> all Islands & Isletts w<sup>th</sup> in five leagues distance of y<sup>e</sup> premises & abutting upon y<sup>e</sup> same or any parte or parcell thereof \* \* \* w<sup>ch</sup> \* \* \* land \* \* \* Cap<sup>t</sup> John Mason w<sup>th</sup> y<sup>e</sup> consent of y<sup>e</sup> president & councill intends to name New Hampshire.

In 1635 the grant of 1629 was confirmed by a supplementary grant, of which the following is an extract:<sup>8</sup>

All y<sup>e</sup> part of y<sup>e</sup> maine land of New England afores<sup>d</sup> being from y<sup>e</sup> middle part of Naumkeck river & from thence to proceed, East wards along y<sup>e</sup> sea Coast to Cape Anne & round about y<sup>e</sup> same to passcattaway harbour & soe forwards up w<sup>th</sup> in y<sup>e</sup> river of Newickewanock & to y<sup>e</sup> farthest head of y<sup>e</sup> said river & from thence Northwards till six miles be finished from y<sup>e</sup> first entrance

<sup>5</sup> The notes of this survey may be found in the New Hampshire Legislative Jour. for 1859, pp. 764-767.

<sup>6</sup> See Hitchcock, C. H., *Geology of New Hampshire*, vol. 1, p. 173, 1874.

<sup>7</sup> Thorpe, F. N., *op. cit.*, vol. 4, p. 2434.

<sup>8</sup> *Idem*, p. 2441. See article by George B. Upham in the *Granite Monthly*, New Hampshire State Magazine for January, 1920, on the survey in 1751 of the boundary of the Mason grant.

of passcattaway harbour & alsoe from Naumkeck through y<sup>e</sup> river thereof up into y<sup>e</sup> land west Sixty miles from w<sup>ch</sup> period to crose over land to y<sup>e</sup> sixty miles end accounted from passcattaway through Newickewanock river to y<sup>e</sup> land north west afores<sup>d</sup> & also all y<sup>e</sup> y<sup>e</sup> south half of y<sup>e</sup> Isles of Sholds all w<sup>ch</sup> lands w<sup>th</sup> y<sup>e</sup> consent of y<sup>e</sup> Councill shall from henceforth be called New Hampshire & alsoe tenn thousand acres more of land in New England afores<sup>d</sup> on y<sup>e</sup> south east part of Sagadahock at y<sup>e</sup> mouth & entrance thereof from henceforth to be called by y<sup>e</sup> name of Masonia.

After the death of Capt. John Mason, in December, 1635, the affairs of the colony coming into bad condition, the colonists sought the protection of Massachusetts in 1641 and enjoyed it till 1675, when Robert Mason, a grandson of John Mason, obtained a royal decree, under which, in 1680, a colonial government was established. But no charter was given to the colony, and its government was continued only during the pleasure of the King. The commission or decree issued by the King in 1680 to John Cutt, of Portsmouth, names the following limits for the colony:

Province of New Hampshire, lying & extending from three miles northward of Merrimack River, or any part thereof to y<sup>e</sup> Province of Maine.

In the year 1690 the Province of New Hampshire was again taken under the jurisdiction of Massachusetts Bay, but in 1692 it was once more separated.

A controversy that arose between the Provinces of New Hampshire and Massachusetts Bay involved not only the boundary between New Hampshire and Maine (see p. 61) but also that between New Hampshire and Massachusetts, and the commissioners appointed by the two Provinces having been unable to agree, New Hampshire appealed to the King, who ordered that the boundaries should be settled by a board of commissioners appointed from the neighboring colonies.

The board met at Hampton in 1737 and submitted a conditional decision to the King, who in 1740 declared in council, as follows:<sup>9</sup>

That the northern boundary of the province of Massachusetts be a similar curve line, pursuing the course of the Merrimack river, at three miles distance, on the north side thereof, beginning at the Atlantic Ocean, and ending at a point due north of Pautucket falls, and a straight line drawn from thence, due west, till it meets with his Majesty's other Governments.

New Hampshire claimed her southern boundary to be a line due west from a point on the sea 3 miles north of the mouth of Merrimack River. Massachusetts claimed all the territory within 3 miles north of any part of Merrimack River. The King's decision gave to New Hampshire a strip of territory more than 50 miles in length and of varying width in excess of that which she claimed. This decree of the King was forwarded to Mr. Belcher, then governor of both the

<sup>9</sup> Slade, William, jr., Vermont State papers, p. 9, J. W. Copeland, printer, 1823.

Provinces of New Hampshire and Massachusetts Bay, with instructions to apply to the respective assemblies to unite in making the necessary provisions for running and marking the line conformably to the said decree, and if either assembly refused, the other was to proceed *ex parte*. Massachusetts Bay declined to comply with this requisition. New Hampshire therefore proceeded alone to run and mark the line.

George Mitchell and Richard Hazzen were appointed by Belcher to survey and mark the line. Pursuant to this authority, in February, 1741, Mitchell ran and marked the line from the seacoast about 3 miles north of the mouth of Merrimack River to a point about 3 miles north of the Pawtucket Falls, and Hazzen, in March following, ran and marked a line from the point 3 miles north of Pawtucket Falls across Connecticut River to the supposed boundary line of New York, on what he then assumed to be a due west course from the place of beginning. He was instructed by Governor Belcher to allow for a westerly variation of the needle of  $10^{\circ}$ .<sup>10</sup>

The report of the surveyors has not been preserved, but the journal of Hazzen has been found and published.<sup>11</sup>

Subsequent investigation has proved that this line was not run on a due west course, the allowance for the westerly variation of the needle being too large, throwing the line north of west. This mistake seems to have been known prior to the Revolution. In 1774 calculations were made by George Sproule, founded upon actual surveys and accurate astronomical observations, from which he determined that Hazzen's line was so far north of west as to lose to the State of New Hampshire a tract of land, computed at 59,872 acres.<sup>12</sup>

In 1825 commissioners were appointed by the States of New Hampshire and Massachusetts to ascertain, run, and mark the line between the two States, under the proceedings of which New Hampshire asserted her claim to a due west line, conformable to the decree of 1740, it being apparent by a survey made by the commissioners that the original line was north of west. The Massachusetts commissioners refused to run such a line, alleging that they were empowered only to ascertain and mark the original line.

On March 10, 1827, the Legislature of Massachusetts passed a resolution providing for the erection of durable monuments to preserve the boundary line between the States of Massachusetts and New Hampshire, as the same had been run and ascertained by the commissioners,<sup>13</sup> and monuments were erected accordingly.

<sup>10</sup> New Hampshire H. R. Jour., 1826, p. 303.

<sup>11</sup> New England Hist. and Geneal. Register, July, 1879, p. 323.

<sup>12</sup> New Hampshire H. R. Jour., 1826, p. 304; see also Williams, Samuel, *Natural and civil history of Vermont*, p. 379, Walpole, N. H., 1794, for list of magnetic declinations in Eastern States of America, 1646-1788.

<sup>13</sup> See Massachusetts Legislature Resolves, 1827.

In 1885 the joint commission appointed by the States of New Hampshire and Massachusetts reran and marked the curved portion of the boundary following the course of Merrimack River, changing it only to a trifling extent. This commission was, however, unable to agree upon the boundary west of Pawtucket Falls. This matter dragged along until finally in 1894 this commission, together with a commission representing Vermont, agreed to maintain the Hazzen line, and this line was retraced and re-marked from Pawtucket Falls to the northwest corner of Massachusetts.

Under the King's decree of 1740 the province of New Hampshire claimed jurisdiction as far west as the territory of Massachusetts and Connecticut extended, thus including the present State of Vermont. New York claimed all the country west of the Connecticut, under the charters of 1664 and 1674 to the Duke of York. A bitter controversy ensued. In 1749 the governor of New Hampshire wrote to the governor of New York as follows:<sup>14</sup>

PORTSMOUTH, *November 17, 1749.*

I think it my duty \* \* \* to transmit to your Excellency the description of New-Hampshire, as the King has determined it in the words of my commission, \* \* \* In consequence of His Majesty's determination of the boundaries between New Hampshire and Massachusetts, a surveyor and proper chainmen were appointed to run the western line from 3 miles north of Pawtucket Falls; and the surveyor, upon oath, has declared that it strikes Hudson's River, about eighty poles north of where Mohawk's River comes into Hudson's River,

B. WENTWORTH.

The following is the description of the south boundary of New Hampshire as given by King George II to Benning Wentworth when Wentworth was appointed governor, July 3, 1741:<sup>15</sup>

province of New Hampshire, within our dominions of New England in America, bounded on the south side by a similar curve line pursuing the course of the Merrimac River at three miles distance, on the north side thereof, beginning at the Atlantick Ocean and ending at a point due north of a place called Pawtucket Falls, and by a straight line drawn from thence due west cross the said river 'till it meets with our other Governments.

The south boundary of New Hampshire was first surveyed and marked in 1741. The latest survey was made by commissioners representing the two States between the years 1885 and 1898. Fifty large cut-granite monuments were established by them on the line at irregular intervals.

The initial point of this survey is the southwest corner of New Hampshire and southeast corner of Vermont, marked by a copper bolt in the top of a block of granite set in a mass of concrete 6 feet square, near ordinary low-water mark on the west bank of Connecti-

<sup>14</sup> Slade, William, Jr., *op. cit.*, p. 10.

<sup>15</sup> Documentary history of New York, vol. 4, p. 331.



cut River, the geographic position of which is latitude  $42^{\circ} 43' 37.21''$ , longitude  $72^{\circ} 27' 32.08''$ . A witness mark of polished granite, suitably inscribed, stands on the Massachusetts-Vermont line, N.  $87^{\circ} 48'$  W., distant 582 feet.

From the State corner the line was run on a general course about  $2\frac{1}{2}^{\circ}$  south of east (true bearing), a measured distance of 57.84 miles to

the boundary pine monument, so-called, standing between the towns of Pelham, New Hampshire, and Dracut, Massachusetts, in the pasture land owned by Zachariah Coburn, at a point where one George Mitchell, surveyor, marked a pitch pine tree, March 21, 1741, then supposed to be 3 miles due north of a place in the Merrimack River formerly called Pawtucket Falls, now Lowell.

This monument is also granite, and its geographic position is latitude  $42^{\circ} 41' 50.25''$ , longitude  $71^{\circ} 19' 22.02''$ .

From this point the boundary consists of a series of straight lines, approximately paralleling Merrimack River and 3 miles distant therefrom.

The terminal mark is a granite monument 42 by 14 by 12 inches in size, marked <sup>S</sup>Mass. on its south face and <sup>S</sup>N. H. on its north face, which

1890

1890

stands on Salisbury beach about 80 feet from high-water line and 250 feet from low-water line of the Atlantic Ocean. Its geographic position is latitude  $42^{\circ} 52' 19.28''$ , longitude  $70^{\circ} 49' 02.94''$ . From this point the boundary extends for "three miles \* \* \* to the limit of State jurisdiction" on a course of  $86^{\circ} 07' 30''$  E.

This survey was approved by Massachusetts<sup>16</sup> and by New Hampshire.<sup>17</sup> The acts of the State legislatures give the complete notes of the surveys. Copies of the notes and many geographic positions on the lines are given in the town boundary atlases prepared by the harbor and land commission of Massachusetts.

The question concerning the western boundary of New Hampshire was submitted to the King, who in 1764 made the following decree:<sup>18</sup>

AT THE COURT AT ST. JAMES,

*The 20th day of July, 1764.*

Whereas there was, this day read at the board, a report made by the Right Honorable the Lords of the Committee of council for plantation affairs, dated the 17th of this instant, upon considering a representation from the Lords Commissioners for trade and plantations, relative to the disputes that have, some years subsisted between the provinces of New-Hampshire and New-York, concerning the boundary line between those provinces—His Majesty, taking the same into consideration, was pleased with the advice of his privy council, to approve of what is therein proposed, and doth accordingly, hereby order and declare the western banks of the river Connecticut, from where it enters

<sup>16</sup> Act of May 12, 1899, ch. 369.

<sup>17</sup> Act of Mar. 22, 1901, ch. 115.

<sup>18</sup> Slade, William, jr., op. cit., p. 19; Documentary history of New York, vol. 4, p. 355.

the Province of the Massachusetts Bay, as far north as the forty-fifth degree of northern latitude, to be the boundary line between the said two provinces of New Hampshire and New York. Wherefore the respective Governors and Commanders in Chief of his Majesty's said Provinces of New-Hampshire and New-York, for the time being, and all others whom it may concern, are to take notice of His Majesty's pleasure hereby signified and govern themselves accordingly.

Notwithstanding this decree of the King controversy attended with violence was kept up for many years, but the line was finally accepted and now forms the boundary between the States of New Hampshire and Vermont.

The northern boundary of New Hampshire was fixed by the British treaty of 1842 (p. 16) and is described as follows:

Commencing at the "Crown Monument," so called,<sup>19</sup> at the intersection of the New Hampshire, Maine, and Province of Quebec boundaries, in latitude  $45^{\circ} 18' 20''$ , longitude  $71^{\circ} 05' 04''$ , thence by an irregular line along the divide to the head of Halls Stream and down the middle of that stream to a line established by Valentine and Collins previous to 1774 as the 45th parallel of latitude.

The position of this line in the middle of Halls Stream is latitude  $45^{\circ} 00' 48.7''$ , longitude  $71^{\circ} 30' 05.6''$ . The New Hampshire-Vermont line then runs east for about  $1\frac{3}{4}$  miles to the west bank of Connecticut River, the approximate position of which is latitude  $45^{\circ} 00' 50''$ , longitude  $71^{\circ} 27' 57''$ . This small area east of Halls Stream, known locally as "The Gore" (see fig. 6), is often incorrectly shown as a part of New Hampshire.

A historical description of the boundaries of New Hampshire is given by Harriman.<sup>20</sup>

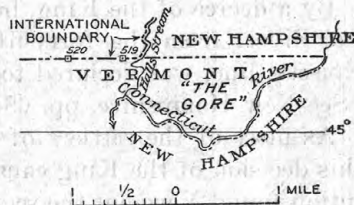


FIGURE 6.—Map of the Gore, at the northeast corner of Vermont.

## VERMONT.

The grants from King Henry of France in 1603 and King James of England in 1606 both included that territory which forms the present State of Vermont. It was also included in the charter of New England of 1620.

In the grants to the Duke of York in 1664 and 1674 all the territory between Connecticut and Delaware rivers was included. New York therefore claimed jurisdiction of the territory now known as Vermont. (See fig. 7.) Massachusetts, however, had made claim at an early period to the tract west of Connecticut River now forming a portion of that State and claimed also the greater part of the Vermont territory.

<sup>19</sup> Now monument No. 475 of the International Boundary Commission.

<sup>20</sup> Harriman, Walter, *The history of Warner*, N. H., pp. 550-581, Concord, 1879.

By the terms of the charter of Massachusetts Bay, of 1629, that colony was granted all the lands

which lye, and be within the space of three English Myles to the Northward of the said River called Monomack alias Merrymack, or to the Northward of any and every Parte thereof.<sup>21</sup>

Under this clause Massachusetts Bay claimed that her jurisdiction extended 3 miles north of the northernmost part of Merrimack River, which would embrace a large portion of New Hampshire and Vermont. New Hampshire contested this claim and after several years' controversy was more than sustained by a decision of the King in 1740. New Hampshire in her turn claimed the territory of Vermont, on the ground that as Massachusetts and Connecticut had been allowed to extend their boundaries within 20 miles of Hudson River her territory should go equally far, and contended that the King's decree of 1740 left that fairly to be inferred; also that the old charters of 1664 and 1674 were obsolete.

By a decree of the King, however, the territory west of Connecticut River, from the forty-fifth parallel of latitude to the Massachusetts line, was declared to belong to the Province of New York. (See New Hampshire, pp. 68-69.)

As most of the settlers of Vermont were from New Hampshire, this decision of the King caused great dissatisfaction, and the Revolution found Vermont the scene of conflicting claims and the theater of violent acts, some culminating in actual bloodshed.

On January 15, 1777, delegates representing 51 towns comprised in the territory known as the "New Hampshire grants," on the west side of the Green Mountains, declared the area an independent State,<sup>22</sup> to be called "New Connecticut, alias Vermont," but the title generally used in official papers for several years thereafter was "the New Hampshire grants."

Sixteen towns in New Hampshire sought union with the new State, but this action was vigorously opposed by New Hampshire and was not approved by the Continental Congress. Massachusetts agreed to the independence of Vermont in 1781, and New Hampshire adjusted her differences with that State in 1782, but 8 years more passed before New York consented to the admission of Vermont to the Union. Vermont in the meantime had fixed upon a western boundary practically the same as at present, which was then described by reference to town boundaries as far north as Poultney River, thence down the middle channel of that river to East Bay and northward to and through the middle of the deepest channel of Lake Champlain.<sup>23</sup>

Vermont was admitted as an independent State March 4, 1791.

<sup>21</sup> Thorpe, F. N., *op. cit.*, vol. 3, p. 1847.

<sup>22</sup> See Fourteenth Census, vol. 1, p. 27, note 50, 1921, "Vermont; Independent republic of Vermont admitted to the Union as a State in 1791."

<sup>23</sup> Slade, William, Jr., *op. cit.*, pp. 69-70, 193.

The northern boundary was settled by the United States and Great Britain by the treaty of 1842 and is the line marked by Hall and Valentine as the forty-fifth parallel extending from the west bank of Connecticut River westward to the deepest part of Lake Champlain. The northwest corner of Vermont, which is the northeast corner of New York, falls in Lake Champlain at latitude  $45^{\circ} 00' 38.9''$ , longitude  $73^{\circ} 20' 38.9''$ . The eastern boundary is low-water mark on the west bank of Connecticut River from the Massachusetts line north to the forty-fifth parallel.

The south boundary of Vermont is part of the north boundary of Massachusetts, which was fixed by the King in council under date of August 5, 1740, and surveyed under the direction of Governor Belcher in 1741.

It was resurveyed and re-marked by commissioners representing the two States between 1885 and 1898. This survey was commenced at the northwest corner of Massachusetts, at a monument consisting of a granite post 8 feet long and 14 inches square set nearly 5 feet in the ground. The faces toward the different States were marked "N. Y. 1898," "Mass. 1896," and "Vt. 1898." Its geographic position is latitude  $42^{\circ} 44' 45.20''$ , longitude  $73^{\circ} 15' 54.90''$ . From this point the boundary is a nearly straight line, bearing about  $2^{\circ}$  south of east (true bearing), and runs 41 miles to the southeast corner of Vermont, which is a mark on the west bank of Connecticut River. A description of this mark is given on pages 67-68.<sup>24</sup>

The line between Vermont and New York was surveyed and marked by commissioners from the two States in 1814 and is as follows:<sup>25</sup>

Beginning at a red or black oak tree, the northwest corner of Massachusetts, and running north  $82^{\circ} 20'$  west as the magnetic needle pointed in 1814, 50 chains, to a monument erected for the southwest corner of the State of Vermont, by Smith Thompson, Simon De Witt, and George Tibbits, commissioners on the part of New York, and Joseph Beeman, jr., Henry Olin, and Joel Pratt, second, commissioners on the part of the State of Vermont, which monument stands on the brow of a high hill, descending to the west, then northerly in a straight line to a point which is distant 10 chains, on a course south 35 degrees west, from the most westerly corner of a lot of land distinguished in the records of the town of Pownal, in the State of Vermont, as the fifth division of the right of Gamaliel Wallace, and which, in the year 1814, was owned and occupied by Abraham Vosburgh; then north 35 degrees east, to said corner and along the westerly bounds of said lot, 30 chains, to a place on the westerly bank of Hosick River where a hemlock tree heretofore stood, noticed in said records as the most northerly corner of said lot; then north 1 degree and

<sup>24</sup> The full notes of this survey are given in the State acts ratifying it (Massachusetts Acts of 1900, ch. 131, and Vermont Acts of 1900, ch. 137), also in the folio atlases of the harbor and land commission of Massachusetts.

<sup>25</sup> New York Rev. Stat., 6th ed., vol. 1, pp. 122-123.



20 minutes west, 6 chains to a monument erected by the said commissioners, standing on the westerly side of Hosick River, on the north side of the highway leading out of Hosick into Pownal, and near the northwesterly corner of the bridge crossing said river; then north 27 degrees and 20 minutes east, 30 chains, through the bed of the said river, to a large roundish rock on the northeasterly bank thereof; then north 25 degrees west, 16 chains and 70 links; then north 9 degrees west, 18 chains and 60 links, to a white oak tree, at the southwest corner of the land occupied in 1814 by Thomas Wilsey; then north 11 degrees east, 77 chains, to the north side of a highway, where it is met by a fence dividing the possession of said Thomas Wilsey, jr., and Emery Hunt; then north 46 degrees east, 6 chains; then south 66 degrees east, 26 chains and 25 links; then north 9 degrees east, 27 chains and 50 links, to a blue-slate stone, anciently set up for the southwest corner of Bennington; then north 7 degrees and 30 minutes east, 46 miles 43 chains and 50 links, to a bunch of hornbeam saplings on the south bank of Poultney River, the northernmost of which was marked by said last-mentioned commissioners, and from which a large butternut tree bears north 70 degrees west, 30 links, a large hard maple tree, south 2 chains and 86 links, and a white ash tree on the north side of said river, north 77 degrees east.

Which said several lines from the monument erected for the southwest corner of the State of Vermont were established by said last-mentioned commissioners, and were run by them, as the magnetic needle pointed, in the year 1814, then down the said Poultney River, through the deepest channel thereof, to East Bay; then through the middle of the deepest channel of East Bay and the waters thereof to where the same communicate with Lake Champlain; then through the middle of deepest channel of Lake Champlain to the eastward of the islands called the Four Brothers, and the westward of the islands called the Grand Isle and Long Isle, or the Two Heroes, and to the westward of the Isle La Motte to the line in the 45th degree of north latitude, established by treaty for the boundary line between the United States and the British Dominions.

This line was changed in 1876 by a cession from Vermont to New York of a very small area west of the village of Fair Haven and opposite the mouth of Castleton River which had been left on the west side of Poultney River by a change in the course of that stream, described as follows:

All that portion of the town of Fairhaven, in the county of Rutland and State of Vermont, lying westerly from the middle of the deepest channel of Poultney River, as it now runs, and between the middle of the deepest channel of said river and the west line of the State of Vermont as at present established.

This cession was ratified by Congress April 7, 1880.<sup>26</sup>

#### MASSACHUSETTS.

The territory of Massachusetts was included in the first charter of Virginia, granted in 1606, and in the charter of New England, granted in 1620.

In 1628 the council of Plymouth made a grant to the governor and company of Massachusetts Bay in New England, which was con-

<sup>26</sup> 21 Stat. L. 72.

firmed by the King, and a charter was granted in 1629, from which the following are extracts: <sup>27</sup>

\* \* \* Nowe Knowe Yee, that Wee \* \* \* have given and graunted \* \* \* all that Parte of Newe England in America which lyes and extendes betweene a greate River there comonlie called Monomack River, alias Merrimack River, and a certen other River there, called Charles River, being in the Bottome of a certen Bay there, comonlie called Massachusetts, alias Mattachusetts, alias Massatusetts Bay; and also all and singuler those Landes and Hereditament whatsoever, lying within the Space of Three English Myles on the South Parte of the said River, called Charles River, or of any, or every Parte thereof; and also all and singuler the Landes and Hereditaments whatsoever, lying and being within the space of Three Englishe Miles to the southward of the Southermost Parte of the said Baye, called Massachusetts, alias Mattachusetts, alias Massatusetts Bay; and also, all those Landes and Hereditaments whatsoever, which lye and be within the Space of Three English Myles to the Northward of the saide River, called Monomack, alias Merrymack, or to the Norward of any and every Parte thereof, and all Landes and Hereditaments whatsoever, lyeing within the Lymitts aforesaide, North and South, in Latitude and Bredth, and in Length and Longitude, of and within all the Bredth aforesaide, throughout the mayne Landes there, from the Atlantick and Westerne Sea and Ocean on the East Parte, to the South Sea on the West Parte;

\* \* \* Provided alwayes, That yf the said Landes \* \* \* were at the tyme of the graunting of the saide former Letters patents, dated the Third Day of November, in the Eighteenth Yeare of our said deare Fathers Raigne aforesaide, actuallie possessed or inhabited by any other Christian Prince or State, or were within the Boundes, Lymytts or Territories of that Southerne Colony, then before graunted by our said late Father \* \* \* That then this present Graunt shall not extend to any such partes or parcellts thereof, \* \* \* but as to those partes or parcellts \* \* \* shal be ytterlie voyd, theis presents or any Thing therein conteyned to the contrarie notwithstanding. \* \* \*

The charter of New England was surrendered to the King in 1635.<sup>28</sup>

The charter of Massachusetts Bay, granted in 1629, was canceled by a judgment of the high court of chancery of England, June 18, 1684.

In 1686 Pemaquid and its dependencies were annexed to the New England government.

In 1691 a new charter was granted to Massachusetts Bay, which included Plymouth Colony and the Provinces of Maine and Nova Scotia. The following are extracts from this charter: <sup>29</sup>

\* \* \* Wee doe \* \* \* will and Ordeyne that the Territories and Collnyes comonly called or known by the Names of the Collony of the Massachusetts Bay and Collony of New Plymouth the Province of Main the Territorie called Accadia or Nova Scotia and all that tract of Land lying betweene the said Territories of Nova Scotia and the said Province of Main be Erected Vnited and Incorporated \* \* \* into one reall Province by the Name of Our Province of the Massachusetts Bay in New England. \* \* \*

<sup>27</sup> Thorpe, F. N., op. cit., vol. 3, p. 1849.

<sup>28</sup> Idem, p. 1860.

<sup>29</sup> Idem, p. 1876.

all that parte of New England in America lying and extending from the greate River comonly called Monomack als Merrimack on the Northpart and from three Miles Northward of the said River to the Atlantick or Western Sea or Ocean on the South part And all the Lands and Hereditaments whatsoever lying within the limits aforesaid and extending as farr as the Outermost Points or Promontories of Land called Cape Cod and Cape Mallabar North and South and in Latitude Breadth and in Length and Longitude of and within all the Breadth and Compass aforesaid throughout the Main Land there from the said Atlantick or Western Sea and Ocean on the East parte towards the South Sea or Westward as far as Our Collonyes of Rhode Island Connecticutt and the Marragansett Countrey all alsoe all that part or porcion of Main Land beginning at the Entrance of Pescata way Harbour and soe to pass vpp the same into the River of Newickewannock and through the same into the furthest head thereof and from thence Northwestward till One Hundred and Twenty miles be finished and from Piscata way Harbour mouth aforesid North-Eastward along the Sea Coast to Sagadehock and from the Period of One Hundred and Twenty Miles aforesaid to crosse over Land to the One Hundred and Twenty Miles before reckoned vp into the Land from Piscataway Harbour through Newickawannock River and alsoe the North halfe of the Isles and Shoales together with the Isles of Cappawock and Nantukett near Cape Cod aforesaid and alsoe [all] Lands and Hereditaments lying and being in the Countrey and Territory comonly called Accadia or Nova Scotia And all those Lands and Hereditaments lying and extending betweene the said Countrey or Territory of Nova Scotia and the said River of Sagadahock or any part thereof And all Lands Grounds Places Soiles Woods and Wood grounds Havens Ports Rivers Waters and other Hereditaments and premisses whatsoever, lying within the said bounds and limitts aforesaid and every part and parcell thereof and alsoe all Islands and Isletts lying within tenn Leagues directly opposite to the Main Land within the said bounds. \* \* \*

The present northern boundary of Massachusetts was first surveyed and marked in 1741. (See New Hampshire, p. 67, and Vermont, p. 71.)

The northern part of the boundary between Massachusetts and Rhode Island is a part of the original southerly line of the territory granted by the council at Plymouth to Sir Henry Roswell and others in the third year of the reign of King Charles I and redefined in the charter granted to the colony of Massachusetts Bay in 1691. This line was for more than 200 years a matter of dispute that was in some respects the most remarkable boundary question with which this country has had to do. Twice the question went to the Supreme Court of the United States, and in one of these suits Daniel Webster and Rufus Choate were employed as counsel for Massachusetts. Choate, in order to illustrate the indefiniteness of certain boundary lines, said before the Massachusetts Legislature:

The commissioners might as well have decided that the line between the States was bounded on the north by a bramble bush, on the south by a blue jay, on the west by a hive of bees in swarming time, and on the east by five hundred foxes with fire brands tied to their tails.

As early as 1642 the line between the two colonies was marked in part by Nathaniel Woodward and Solomon Saffrey, who set up on the plain of Wrentham a stake as the commencement of the line between Massachusetts Bay and Rhode Island. This stake was by them supposed to mark a point 3 miles south of Charles River.

In 1710-11 commissioners appointed from Massachusetts and Rhode Island agreed upon the north line of Rhode Island, and their action was approved by the legislatures of both colonies. The agreement was as follows:<sup>30</sup>

That the stake set up by Nathaniel Woodward and Solomon Saffrey, skillful, approved artists, in the year of our Lord sixteen hundred and forty-two, and since that often renewed, in the latitude of forty-one degrees fifty-five minutes, being three English miles distant southward from the southernmost part of the river called Charles River, agreeable to the letters patent for the Massachusetts province, be accounted and allowed on both sides the commencement of the line between Massachusetts and the colony of Rhode Island, from which said stake the dividing line shall run, so as it may (at Connecticut River) be  $2\frac{1}{2}$  miles to the southward of a due west line, allowing the variation of the compass to be  $9^{\circ}$ ; which said line shall forever \* \* \*

In 1719 this line was run by commissioners appointed for the purpose, but subsequent investigation has shown that it was run very inaccurately.<sup>31</sup>

The line between Massachusetts and the eastern part of Rhode Island was fixed by the commissioners in 1741. The colony of Rhode Island appealed from their decision to the King, but in 1746 he affirmed it by a royal decree.<sup>32</sup>

In accordance with this decree the line was run in 1746 by commissioners of Rhode Island, whose report is in part as follows:<sup>33</sup>

\* \* \* no commissioners in behalf of the said province [Massachusetts Bay] appearing, we proceeded to run a due North line from Pawtucket Falls to the South boundary of the aforesaid province of the Massachusetts Bay, in manner following, viz: from a certain point on the Southern side of Pawtucket Falls, where we erected a monument of stones, with a stake thereon, we run a meridian line, which directly passed through said Falls, to a walnut tree on the Northerly side of said Falls, then to a pitch pine tree, then to a small white oak, then to a grey oak, then to a small bush, then to another small bush with stones about it, then to a heap of stones with a stake thereon, then to a black oak tree, then to another black oak, then to a small pitch pine, then to a black oak, then to a large white oak near the River, called Abbot's run, then to a poplar tree, then to a heap of stones with a stake thereon, then to a large rock with stones thereon, then to a small black oak tree, then to a walnut tree, then

<sup>30</sup> 4 Howard 213.

<sup>31</sup> Rhode Island Acts, May, 1867, pp. 6 et seq.

<sup>32</sup> Certified copies of the proceedings in council and of the royal decree were among the documents presented to the U. S. Supreme Court, December term, 1852, original No. 3, pp. 200-208; also published in U. S. Geol. Survey Bull. 226, pp. 56-59.

<sup>33</sup> U. S. Supreme Court, December term, 1852, original No. 3, pp. 208-210.



to a black oak, then to divers other marked trees in the said course, to the extremity of said line; And when we came near the termination of the said line made a monument of stones, there being no noted South boundary of the said Province near the said line, and therefore, for the discovery of the South boundary of the said Province, upon the best information we could obtain, proceeded to Wrentham Plain, at or near to a place where was formerly erected a stake, called Woodward's and Saffery's stake, as one remarkable South boundary of the said Province, and from thence run a West line, making an allowance of eight degrees and a half, as the West variation of the magnetic needle from the true meridian, it being the course of the South line of the said Province, according to their charter (as we apprehended); and then we extended the said North line from the aforesaid monument till it intersected the said west line, and upon the point of its intersection erected a monument of stones with a stake thereon, as the North-east boundary of that tract of land commonly called the Gore.

After which we proceeded to Bullock's Neck, and on the Southwest corner thereof erected a red cedar post, marked with the letters J. H. C. R., with the figure of an anchor thereon, and from thence running a line North-east, making the same allowance for the variation aforesaid to a black oak tree marked with the letters G. C. C. R., then to a large white oak marked with the letters G. B. C. R., then to a white oak post, set in the ground, with a heap of stones around it, marked with the letters G. W. C. R., with the figure of an anchor thereon, being three miles distant from Bullock's Neck aforesaid.

After which we proceeded to the North-easternmost part of the Bay on the West side of Rumstick Neck; and from a point where a locust post was erected run a line three miles North-east, with the same allowance for the variation, and at the extremity of the said line erected a monument of stones, from which we run a line to the North-east extremity of that line drawn from the Southwest corner of Bullock's Neck aforesaid, the course whereof being West thirty-eight degrees North, according the magnetic needle, the distance of nine hundred and fifty-five rods: marking trees and making other boundaries in the course of said line.

After which we proceeded to the North-east corner of Bristol Harbor, and from high-water mark, which was some rods distant North-east from the bridge leading to Swanzy ferry, we ran a line three miles North-east, still making the same allowance for the variation, at the extremity of which line we erected a monument of stones; then we ran a line from the North-east extremity of the line drawn from Rumstick aforesaid, the course whereof being South twenty-five degrees East, till it met with the termination of the line drawn from Bristol Harbour aforesaid, the distance whereof being nine hundred and twenty-seven rods: and from thence to a straight line to the bay at Towoset Neck: making proper boundaries in the course of said line.

After which we proceeded to the Eastern side of the Narragansett Bay, and on the Easternmost part of a cove in the said bay, which is southward of Nanequacket, ran a line three miles East (still making the same allowance for variation,) at the extremity whereof we marked a grey oak tree with the letters C. R., with the figure of an anchor thereon.

After which we proceeded to the mouth of Fall River, and from thence measured four hundred and forty rods Southerly on the shore, as the said shore extendeth itself from the mouth of said Fall River, and from the point where the said four hundred and forty rods reached, being East thirty-five degrees South of the Southernmost point of Shawomet Neck, we ran a line three miles East, with the same allowance for the variation: in the course whereof we

marked divers trees, and came to a large pond, on the west of which was a small oak between two large rocks, and from thence measured over the said pond to a bunch of maples, two whereof we marked with the letters J and F, standing on a place called Ralph's Neck, being the extremity of the said three miles: from thence we ran a line South twenty degrees West, two thousand one hundred and twenty-three rods (making proper boundaries in said line), till we met the termination of the three-mile line, ran from the cove Southward of Nanequacket aforesaid.

After which we proceeded to a place called Church's Cove, in said bay, and ran a line three miles east, making the same allowance for the variation aforesaid, and at the extremity whereof, and near the sea, we erected a monument of stones, and from thence ran a line North two degrees and a quarter East, one thousand and nine hundred and forty-one rods, till it also met the termination of the said line, drawn from the first mentioned cove as aforesaid: making proper boundaries in the course of said line.

In 1748 the Legislature of Rhode Island appointed commissioners to continue the line to the Connecticut corner, recognizing the Woodward and Saffrey stake as the place of beginning. Massachusetts failed to appoint commissioners, whereupon the Rhode Island commissioners proceeded to complete the running of the line. In their report they say with reference to the initial point of their survey:<sup>34</sup>

That we, not being able to find any stake or other monument which we could imagine set up by Woodward and Saffrey, but considering that the place thereof was described in the agreement mentioned in our commission, by certain invariable marks, we did proceed as followeth, namely: We found a place where Charles River formed a large current southerly, which place is known to many by the name of Poppatolish Pond, which we took to be the southernmost part of said river, from the southernmost part of which we measured three English miles south, which three English miles did terminate upon a plain in a township called Wrentham.

From this time forward repeated steps were taken by Rhode Island, by resolutions and by appointment of commissioners, to ascertain and run the line in connection with commissioners from Massachusetts. Commissioners from both colonies met more than once, but they failed to agree upon a boundary in place of that established under the agreements of 1711 and 1718. As a ground for these efforts Rhode Island alleged that a mistake had been made by her commissioners in commencing the line at the accepted position of the Woodward and Saffrey stake, which, as set on Wrentham Plain, at Burnt Swamp Corner, was considerably more than 3 miles south of Charles River.<sup>35</sup>

This controversy, however, embraced the entire line from the State of Connecticut to the Atlantic Ocean. Massachusetts asserted that an encroachment had been made on her territory from Burnt Swamp Corner to the ocean by Rhode Island, who, on her part, claimed that

<sup>34</sup> 4 Howard 632 (16 U. S. 214).

<sup>35</sup> 14 Peters 273 (13 U. S. 453).

the jurisdictional line of Massachusetts from that corner to the Connecticut line was, in its whole extent, upon the territory of Rhode Island. The legislatures of the respective States having failed after repeated efforts to adjust the controversy, Rhode Island in 1832, by a bill in equity, brought the subject of the northern boundary from Burnt Swamp Corner to the Connecticut line before the Supreme Court of the United States, which in 1846 decided that the jurisdictional line claimed by Massachusetts was the legal boundary of the two States between these points.

While this suit was pending an attempt was made to settle the long controversy by an amicable adjustment of the whole line from the Connecticut corner to the ocean. Commissioners were appointed by both States in 1844 to ascertain and mark the true boundary from Pawtucket Falls to Bullock Neck. In 1845 the same commissioners were authorized to ascertain the line from Burnt Swamp Corner to the Atlantic Ocean.

In 1846, the equity suit having been decided, they were authorized "to erect suitable monuments at the prominent angles of the line, from the Atlantic Ocean to the northwest corner of Rhode Island, and at such other points on the line as may subserve the public convenience." A majority of the commissioners agreed upon a line and erected monuments in 1847.

The report of the joint commission was dated Boston, January 13, 1848. The line so agreed upon as a boundary between Burnt Swamp Corner and the northwest corner of Rhode Island was a straight line, varying a little from the irregular jurisdictional line established by the decision of the Supreme Court, and is described in the report of the commissioners, as follows:

Begin at the northwest corner of Rhode Island, on Connecticut line, in latitude  $42^{\circ} 00' 29''$  north, and longitude  $71^{\circ} 48' 18''$  west of Greenwich, thence easterly in a straight line 21.512 miles to Burnt Swamp Corner, in Wrentham, being in latitude  $42^{\circ} 01' 08''$  and longitude  $71^{\circ} 23' 13''$ .

Upon this line 27 monuments were placed exclusive of that at Burnt Swamp Corner.

The General Assembly of Rhode Island, in May, 1847, ratified and established the line from the ocean to the Connecticut line, "to take effect and become binding whenever the said agreement and boundary line should be ratified by the State of Massachusetts." The Legislature of Massachusetts did not ratify the agreement and boundary line but proposed another joint commission, which was agreed to by Rhode Island.

The attempt made by these commissioners to settle the line having failed, Massachusetts commenced a bill in equity before the Supreme Court of the United States for an adjudication of the boundary line from Burnt Swamp Corner to the Atlantic Ocean.

In 1860 both States agreed upon a conventional line and asked that a decree of the United States Supreme Court should confirm the same, which prayer was granted, and the line was thus finally established by a decree rendered December 16, 1861.<sup>86</sup>

The Supreme Court decision made no reference to the line from Burnt Swamp Corner to the Connecticut line. In 1865 the Legislature of Massachusetts took action in regard to this portion of the line, as follows:

*Resolved*, That the boundary line between the State of Rhode Island and the Commonwealth of Massachusetts, from the line of the State of Connecticut to Burnt Swamp Corner, begins at the north west corner of the State of Rhode Island on the Connecticut line, in latitude  $42^{\circ} 00' 29''$  north, and longitude  $74^{\circ} 48' 18''$ <sup>87</sup> west of Greenwich, and runs in a straight line 21 and  $\frac{1}{10}$  miles to Burnt Swamp Corner, in Wrentham, being in latitude  $42^{\circ} 1' 8''$  and longitude  $71^{\circ} 23' 13''$ .

This is the line agreed upon by commissioners and called the "line of 1848," which was ratified by Rhode Island when run but rejected by Massachusetts.

The tardy ratification of the line by Massachusetts was, in its turn, rejected by Rhode Island, on the ground that the then recent settlement of the eastern boundary by the decree of the Supreme Court had so changed the aspect of the controversy that she could not consent to the adoption of the line of 1848 as her northern boundary.

Thus the northern boundary of Rhode Island was left in abeyance, or rather left in the condition prescribed by the decision of 1846.

In June, 1880, the Legislature of Rhode Island passed a resolution to remove the monuments of the "line of 1848" and erect monuments on the jurisdictional line. In 1881 the Legislature of Massachusetts took like action.

This jurisdictional line has the same termini as the line of 1848 but is a very irregular line, in places running north of a direct line and elsewhere falling south of it, the extreme variations being 529.3 feet north and 129 feet south of the "line of 1848."

The following is a description of the present north boundary of Rhode Island:<sup>88</sup>

Beginning at a monument of dressed granite, marked "Mass." on the north, "R. I." on the south, and "Con." on the west sides, standing at the northwest corner of the State of Rhode Island, in latitude  $42^{\circ} 00' 29.45''$ , longitude  $71^{\circ} 48' 18.07''$  west of Greenwich; thence running easterly in a straight line to a

<sup>86</sup> A full discussion of the Massachusetts-Rhode Island boundary disputes, reports of commissioners, legislative acts, etc., may be found in Massachusetts H. Doc. 102 of 1861, Doc. 3 of 1869, Doc. 1230 of 1899; in Rhode Island Acts, May, 1867; and in U. S. Supreme Court Rec. No. 3, December term of 1852.

<sup>87</sup> This is a clerical error. "Longitude  $74^{\circ} 48' 18''$ " should read "longitude  $71^{\circ} 48' 18''$ ."

<sup>88</sup> Massachusetts Laws for 1883, ch. 154, approved Apr. 30, 1883. Rhode Island act approved Mar. 22, 1883.



pile of stones on the westerly bank of Wallum pond at high-water mark; thence easterly in a straight line to the southwest corner of Uxbridge and the southeast corner of Douglas, to a monument of dressed stone, marked "D Nov. 9, 1829," on northwest face and "U" on east face, and "B" on south face; thence running easterly in a straight line to a point formed by the intersection of the easterly line of Harris Avenue, so called, with the southerly line of Gaskill Street near the bridge of Waterford, and about fifteen rods easterly of the easterly bank of the Blackstone River; thence running easterly in a straight line to a monument of split stone granite about five feet above ground, having five faces, marked on the west face "M," on the northeast face "B," and on the south face "C"; thence easterly in a straight line to the stone monument now standing on Wrentham Plain at Burnt Swamp Corner, in latitude  $42^{\circ} 01' 08.60''$ , longitude  $71^{\circ} 23' 13.26''$  west of Greenwich, marked on two sides (Mass.) and on the other two sides (R. I.).

The following statement concerning the east boundary of Rhode Island was made by the commissioners of 1897-98:<sup>39</sup>

On March 1, 1862, a decree of the Supreme Court of the United States issued the previous year became effective, which changed the boundary line between the Commonwealth of Massachusetts and the State of Rhode Island. By this change the town of Pawtucket west of the Seven and Ten Mile rivers, a narrow strip of Seekonk between the middle of the above-named rivers and the line of highest water on the eastern banks, and the southwestern part of Seekonk, now East Providence, were annexed to Rhode Island, in exchange for territory in the vicinity of Fall River. The Legislature of Massachusetts anticipating this change, provided by chapter 187 of the acts of 1861 for the proper jurisdiction of the territory east of this new boundary, and the State of Rhode Island by a similar act, chapter 379 of the acts of 1861, provided for the jurisdiction of the new territory acquired west of this line.

On account of the imperfect marking of this line and the difficulty of defining the high-water lines of rivers and ponds, which formed the State boundary, it was decided in 1897 to redefine the line and to substitute for indefinite high-water boundaries a series of straight lines as near as may be to the line established by the decree of 1861, which could be readily and permanently marked.

The general court of that year authorized the topographical survey commission, representing Massachusetts, to act in conjunction with a commission representing Rhode Island, in locating, defining, and marking the State boundary line, from "Burnt Swamp Corner" southerly to the sea.

A full report of the doings of these commissions was made in May, 1899 (H. Doc. 1230), and the general courts of both States promptly ratified their work by the passage of acts containing a full description of the line.

A condensed description of the east boundary of Rhode Island as at present marked is as follows:<sup>40</sup>

Beginning at bound 1, known as "Burnt Swamp Corner," a granite monument lettered Mass.-R. I. 1861-1883-1898, standing at the northeast corner of the State of Rhode Island, in latitude  $42^{\circ} 01' 08.35''$ , longitude  $71^{\circ} 22' 54.41''$ ; thence on an azimuth of  $0^{\circ} 02' 40''$ , 45,693.4 feet to bound 39, a granite monument lettered Mass.-R. I. 1897, set in concrete masonry, standing on the east

<sup>39</sup> Massachusetts Topog. Survey Com. Rept.: Atlas of the boundaries of the Town of Seekonk, sheet A, 1900.

<sup>40</sup> For a full description see Massachusetts act of June 3, 1899, ch. 476; Rhode Island act approved May 26, 1899, ch. 683.

bank of the Blackstone River in latitude  $41^{\circ} 53' 36.94''$ ; thence on an azimuth of  $260^{\circ} 59' 29''$ , 11,763.7 feet to bound 53, a new granite monument lettered A P S Mass.-R. I. 1898, standing about 42 feet east of the east bank of the Seven Mile River, in latitude  $41^{\circ} 53' 55.11''$  and longitude  $71^{\circ} 20' 21.35''$ ; thence on an azimuth of  $5^{\circ} 20' 40''$ , 6,144.9 feet to bound 58, a granite monument, standing near the high-water line on the east bank of the Ten Mile River between Central Avenue and Brook Street, in latitude  $41^{\circ} 52' 54.67''$  and longitude  $71^{\circ} 20' 28.92''$ ; thence on an azimuth of  $345^{\circ} 03' 52''$ , 7,240.7 feet to bound 63, a granite monument, standing east of the Ten Mile River and south of the India Point branch of the New York, New Haven & Hartford Railroad, in latitude  $41^{\circ} 51' 45.55''$  and longitude  $71^{\circ} 20' 04.26''$ ; thence on an azimuth of  $19^{\circ} 31' 11''$ , 6,938.6 feet to bound 64, a granite monument, lettered Mass.-R. I. 1898, standing near the east bank of Central Pond and north of the road leading by Central Mills, in latitude  $41^{\circ} 50' 40.94''$  and longitude  $71^{\circ} 20' 34.89''$ ; thence on an azimuth of  $329^{\circ} 22' 28''$ , 3,815.8 feet to bound 67, a granite monument, standing in Bridgham's woods east of the Ten Mile River, in latitude  $41^{\circ} 50' 08.50''$  and longitude  $71^{\circ} 20' 09.21''$ ; thence on an azimuth of  $42^{\circ} 32' 59''$ , 3,942.4 feet to bound 70, a granite monument, standing at Hunt's Mills, east of the Ten Mile River, near the East Providence waterworks, in latitude  $41^{\circ} 49' 39.81''$  and longitude  $71^{\circ} 20' 44.42''$ ; thence on an azimuth of  $21^{\circ} 37' 14''$ , 1,736.4 feet to bound 71, a granite monument, standing on the north side of Taunton Avenue, in latitude  $41^{\circ} 49' 23.86''$  and longitude  $71^{\circ} 20' 52.87''$ ; thence on an azimuth of  $337^{\circ} 20' 00''$ , 5,812.1 feet to bound 76, an iron bolt in the center of a stone pier of an old bridge over Runnins River, on the north side of Warren Avenue, near Luther's Corner, in latitude  $41^{\circ} 48' 30.87''$  and longitude  $71^{\circ} 20' 23.30''$ ; thence through the center or middle of Runnins River, as the same is at low water, 14,508 feet to corner 77, at a point in the river distant 115 feet from bound 78, a granite witness monument, in latitude  $41^{\circ} 46' 50.12''$  and longitude  $71^{\circ} 19' 42.88''$ , where the State line from "Birch Swamp Corner" passing through Monroe's Corner, produced, intersects the center line of the river, in latitude  $41^{\circ} 46' 50.68''$  and longitude  $71^{\circ} 19' 44.20''$ ; thence on an azimuth of  $299^{\circ} 31' 57''$ , passing through said bound 78, 21,138.2 feet to bound 92, a granite monument, known as "Birch Swamp Corner," standing in the woods south of Kings Rock, in latitude  $41^{\circ} 45' 07.67''$  and longitude  $71^{\circ} 15' 41.56''$ ; thence on an azimuth of  $326^{\circ} 38' 12''$ , 17,282.6 feet to bound 102, a granite monument, standing at the high-water mark on the west shore of Mount Hope Bay, in latitude  $41^{\circ} 42' 45.04''$  and longitude  $71^{\circ} 13' 36.24''$ ; thence on an azimuth of  $328^{\circ} 23' 40''$ , across Mount Hope Bay, 15,977.3 feet to bound 103, a granite monument, standing in the center of State Avenue at its intersection with high-water mark on the east shore of Mount Hope Bay, in latitude  $41^{\circ} 40' 30.59''$  and longitude  $71^{\circ} 11' 45.91''$ ; thence on an azimuth of  $283^{\circ} 40' 36''$ , through the center of State Avenue, 5,574.4 feet to bound 110, a granite monument, set in concrete masonry in Cook's Pond, Fall River, in latitude  $41^{\circ} 40' 17.56''$  and longitude  $71^{\circ} 10' 34.55''$ ; thence on an azimuth of  $4^{\circ} 27' 14''$ , through the center of an old Eight Rod Way, 1,186.5 feet to bound 112, a granite monument, south of Cook's Pond, in latitude  $41^{\circ} 40' 05.88''$  and longitude  $71^{\circ} 10' 35.76''$ ; thence on an azimuth of  $283^{\circ} 33' 03''$ , 12,244 feet to bound 117, a granite monument, set in concrete, on the west shore of South Watuppa Pond, in latitude  $41^{\circ} 39' 37.50''$  and longitude  $71^{\circ} 07' 58.95''$ ; thence on an azimuth of  $4^{\circ} 42' 51''$ , 5,967.2 feet to bound 118, a granite monument, standing on the shore of South Watuppa Pond, in latitude  $41^{\circ} 38' 38.75''$  and longitude  $71^{\circ} 08' 05.41''$ ; thence on an azimuth of  $2^{\circ} 38' 02''$ , 5,675.3 feet to bound 120, a granite monument, lettered Mass.-R. I. 1898, standing on the south side of

Bliss Road and west of the outlet to Sawdy Pond, in latitude  $41^{\circ} 37' 42.74''$  and longitude  $71^{\circ} 08' 08.84''$ ; thence on an azimuth of  $38^{\circ} 24' 00''$ , 2,147 feet to bound 121, a granite monument, standing on the west shore of Sawdy Pond, in latitude  $41^{\circ} 37' 26.11''$  and longitude  $71^{\circ} 08' 26.40''$ ; thence on an azimuth of  $6^{\circ} 41' 25''$ , 4,159.4 feet to bound 122, a granite monument, set in concrete masonry, on the west shore of Sawdy Pond, in latitude  $41^{\circ} 36' 45.30''$  and longitude  $71^{\circ} 08' 32.78''$ ; thence on an azimuth of  $350^{\circ} 51' 04''$ , 2,835.8 feet to bound 123, a granite monument, standing on the west shore of Sawdy Pond, in latitude  $41^{\circ} 36' 17.64''$  and longitude  $71^{\circ} 08' 26.84''$ ; thence on an azimuth of  $308^{\circ} 31' 11''$ , 686 feet to bound 124, a granite monument, standing at the south end of Sawdy Pond, in latitude  $41^{\circ} 36' 13.42''$  and longitude  $71^{\circ} 08' 19.78''$ ; thence on an azimuth of  $333^{\circ} 06' 55''$ , 4,069.2 feet to bound 127, a granite monument, set in concrete and known as "Joe Sanford's Bound," in latitude  $41^{\circ} 35' 37.56''$  and longitude  $71^{\circ} 07' 55.56''$ ; thence on an azimuth of  $354^{\circ} 40' 49''$ , 14,189 feet to bound 128, a granite monument, set in concrete, on the north side of the road and dam in the village of Adamsville, in latitude  $41^{\circ} 33' 17.98''$  and longitude  $71^{\circ} 07' 38.26''$ ; thence on an azimuth of  $353^{\circ} 18' 42''$ , 1,239.7 feet to bound 130, a granite monument, standing on the northeast side of the highway south of Adamsville, in latitude  $41^{\circ} 33' 05.81''$  and longitude  $71^{\circ} 07' 36.36''$ ; thence on an azimuth of  $354^{\circ} 23' 32''$ , 10,779.3 feet to bound 135, a granite monument, lettered Mass.-R. I., standing on the north side of the road leading to Little Compton, in latitude  $41^{\circ} 31' 19.83''$  and longitude  $71^{\circ} 07' 22.52''$ ; thence on an azimuth of  $356^{\circ} 39' 48''$ , 8,234.1 feet to bound 137, a granite monument, standing in the position formerly occupied by "Peaked Rock Bound," near the Atlantic Ocean, in latitude  $41^{\circ} 29' 58.61''$  and longitude  $71^{\circ} 07' 16.22''$ ; thence in the same direction about 785 feet to corner 138, a point where this line intersects the line of high water at the Atlantic Ocean and distant from the point of beginning about 45.789 miles.

Each of the granite monuments above described is marked "Mass.-R. I., 1898."

In 1713 commissioners from the Province of Massachusetts Bay and Colony of Connecticut settled a line between Massachusetts and Connecticut. By this line certain northern frontier towns were given to Massachusetts, viz, Woodstock, Suffield, Enfield, and Somers. In 1749 the Legislature of Connecticut passed a resolution stating that inasmuch as the line had not been approved by the King and the two colonies had no legal right to transfer territory without the confirmation of the Crown, the contract was void, and these towns were again taken under the jurisdiction of Connecticut. Massachusetts appealed to the King, and the claims of Connecticut were fully established.<sup>41</sup>

In 1791 Massachusetts and Connecticut appointed commissioners to establish the boundary between them, but the commissioners were unable to agree.

In 1803 commissioners were appointed to complete the line west of Connecticut River, a compromise having been made concerning the line between the town of Southwick and the towns of Suffield

<sup>41</sup> Hollister, G. H., *History of Connecticut*, vol. 2, Hartford, 1857.

and Granby (the cause of the disagreement of the former commissioners). The agreement made was as follows:<sup>42</sup>

That the line should begin from a station 8 rods south of the southwest corner of West Springfield, and thence run west to the large ponds, and thence southerly by those ponds to the ancient south line of Westfield, and from thence on said south line to the ancient southwest corner of Westfield; and from thence northerly in the ancient west line of Westfield to the station in said west line made by commissioners in the year 1714, and from thence to the southwest corner of Granville.

The reason for this peculiar deviation from a straight boundary, known as the "Southwick jog," is that when adjusting errors in the boundary line between Connecticut and Massachusetts as previously run by compass a long, narrow strip of land was given to Connecticut, and the Southwick jog ceded to Massachusetts was intended to be an equivalent area.

In 1826 the line between Massachusetts and Connecticut east of Connecticut River was run by commissioners appointed from each State, and 49 stone monuments were erected, marked "M" on the north side and "C" on the south.<sup>43</sup>

The same commissioners surveyed and marked the line from the northeast corner of Connecticut to the corner of Rhode Island, reporting as follows:

Beginning at the monument erected at the northeast corner of said State of Connecticut and running in a direct line to the ancient heap of stones on the north side of the turnpike leading from Hartford to Boston, through Thompson and Douglass, where we erected a monument, and thence running in a direct line to the northwest corner of the State of Rhode Island.

The present boundary between Massachusetts and Connecticut was fixed by a joint commission authorized by legislative acts of both States in 1905. The line as surveyed and marked was approved by Massachusetts in 1908,<sup>44</sup> by Connecticut in 1913, and by the United States Congress October 3, 1914.<sup>45</sup> It is thus described:

Beginning at a granite monument at the northwest corner of the State of Rhode Island and marking the corner of Massachusetts, Rhode Island, and Connecticut, in latitude  $42^{\circ} 00' 29.150''$  and longitude  $71^{\circ} 47' 58.778''$ ; [thence in a general northerly direction] to a granite monument at the northeast corner of the State of Connecticut, in latitude  $42^{\circ} 01' 24.807''$  and longitude  $71^{\circ} 48' 04.123''$ .

From this corner the boundary is approximately a straight line bearing  $1^{\circ}$  or  $2^{\circ}$  north of west till Connecticut River is approached.

<sup>42</sup> Massachusetts Special Laws, vol. 3, p. 234. For the full report of the commissioners see Connecticut Private Laws, vol. 2, pp. 1540-1544.

<sup>43</sup> *Idem*, pp. 1544-1550.

<sup>44</sup> Massachusetts acts of 1908, ch. 192.

<sup>45</sup> 38 Stat. L. 727.



From a granite monument in latitude  $42^{\circ} 02' 04.619''$ , longitude  $72^{\circ} 31' 55.276''$ , the full notes are as follows:

South  $81^{\circ} 56' 34''$  west, 11,309 feet to a granite monument about 620 feet south of Allen Street in Longmeadow, in latitude  $42^{\circ} 01' 48''.933$  and longitude  $72^{\circ} 34' 23''.644$ ; thence south  $51^{\circ} 56' 28''$  west, 3,238 feet to a granite monument 450 feet east of the main road from Thompsonville to Springfield, in latitude  $42^{\circ} 01' 29''.212$  and longitude  $72^{\circ} 34' 57''.422$ ; thence north  $88^{\circ} 35' 49''$  west, 5,834 feet to a granite monument on the top of the bank, about 175 feet east of the easterly shore of the Connecticut River, in latitude  $42^{\circ} 01' 30''.616$  and longitude  $72^{\circ} 36' 14''.696$ ; thence in the same direction, 950 feet to the middle of said river; thence northerly along a line midway between the banks thereof, about 2,075 feet; thence north  $87^{\circ} 18' 55''$  west, 1,260 feet to a granite monument standing on the bank about 225 feet west of the westerly shore of the river, in latitude  $42^{\circ} 01' 51''.983$  and longitude  $72^{\circ} 36' 44''.913$ ; thence in the same direction, 7,661 feet to a granite monument about 875 feet west of North Street, or Suffield Street, the middle road from Suffield to Springfield, in latitude  $42^{\circ} 01' 55''.516$  and longitude  $72^{\circ} 38' 26''.318$ ; thence north  $82^{\circ} 39' 40''$  west, 8,966 feet to a granite monument on the easterly side of Halladay Avenue, or Front Street, the road from Suffield to Feeding Hills, in latitude  $42^{\circ} 02' 06''.813$  and longitude  $72^{\circ} 40' 24''.149$ ; thence north  $84^{\circ} 51' 12''$  west, 7,202 feet to a granite monument on the easterly side of West Street, the road from West Suffield to Westfield, in latitude  $42^{\circ} 02' 13''.185$  and longitude  $72^{\circ} 41' 59''.207$ ; thence south  $89^{\circ} 46' 25''$  west, 4,137 feet to a granite monument at the corner of Agawam and Southwick in Massachusetts and Suffield in Connecticut, in latitude  $42^{\circ} 02' 13''.019$  and longitude  $72^{\circ} 42' 54''.032$ ; thence south  $0^{\circ} 48' 01''$  east, 132 feet to a granite monument, in latitude  $42^{\circ} 02' 11''.716$  and longitude  $72^{\circ} 42' 54''.008$ ; thence south  $89^{\circ} 38' 09''$  west, 11,231 feet to a granite monument on the easterly shore of Congamond Lake, in latitude  $42^{\circ} 02' 10''.984$  and longitude  $72^{\circ} 45' 22''.830$ ; thence in the same direction, 14.5 feet to the shore of the lake as it would be with the surface of the water at the elevation it was in 1803; thence southerly, by the easterly shore of the lake as it would be with the surface of the water at the aforesaid elevation to a point opposite a granite monument near the shore at the southerly end of the lake; thence south  $4^{\circ} 26' 29''$  west, about 25 feet to said monument, in latitude  $42^{\circ} 00' 27''.957$  and longitude  $72^{\circ} 46' 00''.167$ ; thence in the same direction, 1,632 feet to a granite monument at the southeasterly corner of the "Southwick jog," in latitude  $42^{\circ} 00' 11''.881$  and longitude  $72^{\circ} 46' 01''.841$ ; thence south  $81^{\circ} 33' 28''$  west, 13,827 feet to a granite monument at the southwesterly corner of the "Southwick jog," in latitude  $41^{\circ} 59' 51''.787$  and longitude  $72^{\circ} 49' 02''.976$ ; thence north  $3^{\circ} 33' 56''$  east, 14,261 feet to a granite monument known as the "Crank Monument," in latitude  $42^{\circ} 02' 12''.399$  and longitude  $72^{\circ} 48' 51''.223$ .

From this corner the line runs on a general westerly course, bearing about  $1^{\circ}$  north of west, to

a large rock, marked 1803 on its southerly side, in Sage's Ravine, in latitude  $42^{\circ} 03' 02.214''$  and longitude  $73^{\circ} 26' 00.030''$ ; thence south  $88^{\circ} 31' 58''$  west 14,787 feet to a granite monument at the northwesterly corner of the State of Connecticut and marking the corner of Massachusetts, New York, and Connecticut, in latitude  $42^{\circ} 02' 58.427''$  and longitude  $73^{\circ} 29' 15.959''.^{46}$

<sup>46</sup> For the full notes of this boundary see Massachusetts acts of 1908, ch. 192; and Connecticut acts of 1913; see also 38 Stat. L. 727. For a description of each of the 214 marks on this line see Board of Harbor and Land Commissioners Twenty-ninth Ann. Rept.: Massachusetts Pub. Doc. 11 of 1907, pp. 106-117, Boston, 1908.

The boundary between Massachusetts and New York from an early period was a subject of controversy, New York claiming to the west bank of Connecticut River, under the charters of 1664 and 1674 to the Duke of York, and Massachusetts claiming, under her old charters, to the "South Sea." After many fruitless attempts at a settlement, an arrangement was entered into in 1773 fixing the western boundary of Massachusetts where it now meets New York territory. The Revolution following soon after, the line was not run. In 1785 Congress appointed three commissioners to run the line, who performed that duty in 1787. The line was as follows:<sup>47</sup>

Beginning at a monument erected in 1731 by commissioners from Connecticut and New York, distant from the Hudson River 20 miles, and running north 15° 12' 9" east 50 miles 41 chains and 79 links, to a red or black oak tree marked by said commissioners, which said line was run as the magnetic needle pointed in 1787.

The claims of Massachusetts to western lands within the territory of the State of New York were finally settled December 16, 1786, by a joint commission of the two States. By this agreement Massachusetts surrendered the sovereignty of the whole disputed territory to New York and received in return the right of soil and pre-emption right of Indian purchase west of the meridian passing through the eighty-second milestone of the Pennsylvania line (see fig. 7), excepting certain reservations upon Niagara River. The title to a tract known as "The Boston Ten Towns," lying east of this meridian and previously granted by Massachusetts, was confirmed.<sup>48</sup>

April 19, 1785, Massachusetts executed a deed to the United States. It included all title of the State of Massachusetts to territory west of the present western boundary of New York.

In 1820 Maine, hitherto a part of Massachusetts, was admitted into the Union as an independent State.

In 1853, an area of about 1,010 acres (see insert, fig. 7) in the southwest corner of Massachusetts, known as Boston Corner, was ceded to New York, and in 1855 the cession was confirmed by Congress.<sup>49</sup>

The present boundary between Massachusetts and New York is thus described from resurveys by a joint commission in 1899:

Beginning at bound 1, a granite monument set in ledge on the side of a wooded mountain peak six hundred and nine feet east of Ryan Bush Road, in latitude 42° 02' 58.427" north of the Equator, and longitude 73° 29' 15.959" west from Greenwich, and marking the northwest corner of Connecticut, a corner of the Commonwealth of Massachusetts, and a corner of the State of New York; thence on an azimuth of 90° 43' 49", twenty-six hundred

<sup>47</sup> New York Rev. Stat., 1875, p. 122.

<sup>48</sup> Hough's New York Gazette, 1872, pp. 25, 26.

<sup>49</sup> 10 Stat. L. 602.

and twenty-four feet to bound 3, a granite monument set in ledge on the steep westerly slope of a wooded mountain, in latitude  $42^{\circ} 02' 58.756''$  and longitude  $73^{\circ} 29' 50.737''$ , at the southwest corner of Massachusetts, also in the eastern line of New York, and marking a corner of the towns of Mount Washington, in Massachusetts, and Ancram and Northeast, in New York; thence on an azimuth of  $167^{\circ} 08' 15''$ , thirteen thousand six hundred and forty-nine feet to bound 9, a granite monument set in ledge on the westerly wooded slope of Alandar Mountain about a quarter mile west of its summit, in latitude  $42^{\circ} 05' 10.205''$  and longitude  $73^{\circ} 30' 31.031''$ , at the corner of Mount Washington, in Massachusetts, and Copake, in New York; thence on an azimuth of  $195^{\circ} 12' 22''$ , two hundred forty-nine thousand two hundred and forty-six feet, by the towns of Mount Washington, Egremont, Alford, West Stockbridge, Richmond, Hancock, and Williamstown, in Massachusetts, and Copake, Hillsdale, Austerlitz, Canaan, New Lebanon, Stephentown, Berlin, and Petersburg, in New York, to bound 112, a granite monument set in ledge and earth on an open easterly slope about seventy-five feet west of a private roadway, in latitude  $42^{\circ} 44' 45.201''$  and longitude  $73^{\circ} 15' 54.904''$  at the northwest corner of Massachusetts, also in the east line of New York and in the south line of Vermont, and marking a corner in the boundaries of the towns of Williamstown, in Massachusetts, Petersburg, in New York, and Pownal, in Vermont.

The term "azimuth" as used in this description is the angle which a line makes at its point of beginning with the true meridian, reckoning from the south around by the west.

This location of the line was approved by Massachusetts May 8, 1901, and by New York June 9, 1910.<sup>50</sup>

Massachusetts is one of the very few States that has had her boundary lines adequately marked and by frequent inspection maintains the marks in good condition. In addition to the marking of her exterior lines the State has also had comprehensive surveys made of interior township boundaries. The lines and corners are controlled by an accurate system of triangulation, so that if any number of marks were destroyed the exact positions for new ones to replace them could be readily ascertained from the triangulation data. The results of these surveys are published in a series of folios by the State Harbor and Land Commission. These folios give plats of the lines, positions of triangulation stations, descriptions of boundary marks, extracts from laws by which the lines were fixed, and some historical matter. This action by the State is highly commendable and could be followed by other States with profit.

#### RHODE ISLAND.

The present State of Rhode Island was settled by Roger Williams and other immigrants, who left Massachusetts Bay and established themselves at Providence in 1636. The legal name for this State is the State of Rhode Island and Providence Plantations.

<sup>50</sup> Massachusetts acts of 1901, ch. 374; New York acts of 1910, ch. 447.

In 1643 a patent was granted for the Providence Plantations, from which the following are extracts:<sup>51</sup>

And whereas there is a Tract of Land in the Continent of America aforesaid, called by the Name of Narraganset Bay; bordering Northward and Northeast on the Patent of the Massachusetts, East and Southwest on Plymouth Patent, South on the Ocean, and on the West and Northwest by the Indians called Nahigganneucks, alias Narragansets; the whole Tract extending about twenty-five English Miles unto the Pequot River and Country.

And whereas divers well affected and industrious English Inhabitants, of the Towns of Providence, Portsmouth, and Newport, in the tract aforesaid, \* \* \* have represented their Desire, \* \* \* Do, \* \* \* give, grant, and confirm to the aforesaid Inhabitants of the Towns of Providence, Portsmouth, and Newport a free and absolute Charter of Incorporation, to be known by the Name of the Incorporation of Providence Plantations, in the Narraganset Bay, in New England. \* \* \*

In 1663 Charles II granted a charter to the governor and company of the English colony of Rhode Island and Providence Plantations in New England in America, of which the following is an extract:<sup>52</sup>

\* \* \* all that parte of our dominiones in New-England, in America, conteyneing the Nahantick and Nanhyganset Bay, and countreyes and partes adjacent, bounded on the west, or westerly, to the middle or channel of a river there, commonly called and known by the name of Pawcatuck, alias Pawcawtuck river, and soe along the sayd river, as the greater or middle streame thereof reacheth or lyes vpp into the north countrey, northward, unto the head thereof, and from thence, by a streight lyne drawn due north vntil itt meets with the south lyne of the Massachusetts Collonie; and on the north, or northerly, by the aforesayd south or southerly lyne of the Massachusetts Collony or Plantation, and extending towards the east, or eastwardly, three English miles to the east and northeast of the most eastern and northeastern parts of the aforesayd Narraganset Bay, as the sayd bay lyeth or extendeth itself from the ocean on the south, or southwardly, vnto the mouth of the river which runneth towards the towne of Providence, and from thence along the eastwardly side or banke of the sayd river (higher called by the name of Seacuncck river), vp to the ffalls called Patuckett ffalls, being the most westwardly lyne of Plymouth Collony, and soe from the sayd ffalls, in a streight lyne, due north, untill itt meete with the aforesayd line of the Massachusetts Collony; and bounded on the south by the ocean: and in particular, the lands belonging to the townes of Providence, Pawtuxet, Warwicke, Misquammacok, alias Pawcatuck, and the rest vpon the maine land in the tract aforesayd, together with Rhode Island, Blocke Island, and all the rest of the islands and banks in the Narraganset Bay and bordering vpon the coast of the tracts aforesaid (Fisher's Island only excepted), \* \* \*

This charter was in force until 1843, when the constitution adopted in 1842 became effective.

For a history of the northern and eastern boundaries see Massachusetts, pages 74-82.

In 1703 substantially the present western boundary was adopted by an agreement made between the commissioners from the two

<sup>51</sup> Thorpe, F. N., op. cit., vol. 6, p. 3210.

<sup>52</sup> Idem, p. 3220.



colonies of Rhode Island and Connecticut, viz, "A straight line from the mouth of Ashawoga River to the southwest corner of the Warwick purchase, and thence a straight north line to Massachusetts." The line of 1703 was actually run by Rhode Island and is still known as the Dexter and Hopkins line. The two Colonies disagreeing, Rhode Island appealed to the King, and the agreement of 1703 was finally established in 1726. In September, 1728, commissioners from the two Colonies met and ran the line.<sup>53</sup>

In 1839 commissioners were appointed by Rhode Island and Connecticut to survey the line and erect monuments. The following line was established :

Beginning at a rock near the mouth of Ashawoga River, where it empties into Pawcatuck River, and from said rock a straight course northerly to an ancient stone heap at the southeast corner of the town of Voluntown, and from said rock southerly in the same course with the aforesaid line, until it strikes Pawcatuck River. From the southeast corner of Voluntown a straight line to a stone heap at the southwest corner of West Greenwich; from thence a straight line to the southwest corner of the ancient town of Warwick, and which is now a corner of the towns of Coventry and West Greenwich; from thence a straight line to the northwest corner of the town of Coventry; thence a straight line to the northeast corner of Sterling; thence a straight line to the southwest corner of Burrillville, and thence a straight line to a stone heap upon a hill in the present jurisdictional line between the States of Massachusetts and Rhode Island, and at all of said corners, excepting said Warwick corner, we have erected monuments of stone, marked R. I. and C., and have also placed similar monuments on all the principal roads crossing the line, and at other suitable places.

\* \* \* \* \*

And we have caused the ancient monument which was erected at the Warwick corner in November, 1742, to be reset and a large heap of stones to be made around it. Said monument is marked with the letter C. on one side, and on the other RHODE ISLAND and the traces of other letters and figures.<sup>54</sup>

The work of the commissioners was ratified in 1846.

#### CONNECTICUT.<sup>55</sup>

In 1630 the Plymouth Council made a grant of Connecticut to Robert, Earl of Warwick, their president. This grant was confirmed by King Charles in 1631, and on March 19, in the same year, the earl conveyed his title to Lord Say and Seal, Lord Brooke, Sir Richard Saltonstall, and others, associated under the name of the Plymouth Co.<sup>56</sup>

<sup>53</sup> For agreements of 1703 and 1728, decisions of English council, etc., see Rhode Island Hist. Soc., Coll., vol. 3.

<sup>54</sup> Rhode Island acts and resolves, January, 1846, pp. 12, 13, 14.

<sup>55</sup> For an excellent historical description of the boundaries of Connecticut see Bowen, C. W., *The boundary disputes of Connecticut*, Boston, 1882.

<sup>56</sup> Dwight, Theodore, jr., *History of Connecticut*, p. 19, New York, 1840.

A charter was granted by Charles II to Connecticut in 1662, of which the following is an extract:<sup>57</sup>

We, \* \* \* do give, grant and confirm unto the said Governor and Company, and their Successors, all that Part of Our Dominions in New England in America, bounded on the east by *Narraganset River*, commonly called *Narraganset Bay*, where the said River falleth into the Sea; and on the *North* by the Line of the *Massachusetts plantation*; and on the *South* by the Sea; and in Longitude as the Line of the *Massachusetts Colony*, running from *East* to *West*, that is to say, from the said *Narraganset-Bay* on the *East*, to the *South Sea* on the *West* part, with the *Islands* thereunto adjoining.

Prior to this time the two colonies of Connecticut and New Haven had continued separate, but they were united under this charter, which was accepted April 20, 1665.<sup>58</sup>

The Duke of York having been granted a charter in 1664, by which the lands west of Connecticut River were embraced in his jurisdiction, the question of boundary immediately arose.

About this time Col. Richard Nichols, George Cartwright, Esq., Sir Robert Carr, and Samuel Maverick, Esq., had been appointed commissioners by the King and clothed with extraordinary powers to determine all controversies in the Colonies. The matter was referred to them, and, after a full hearing, they determined that the southern boundary of Connecticut was the sea (Long Island Sound) and its western boundary Mamaroneck River and a line drawn north-north-west from the head of salt water in it to Massachusetts. The territory south and west of these lines was declared to belong to the Duke of York. It was supposed that this west boundary would run about 20 miles east of Hudson River, but it was discovered later by surveyors from Connecticut that it actually intersected the Hudson near the present site of Tarrytown.

In 1674 the Duke of York received a new charter in substantially the same terms as that of 1664. New controversies concerning jurisdiction led to a new agreement, dated November 28, 1683, between the governors of New York and Connecticut, which fixed the boundary substantially as it now exists between the two States and was sanctioned by the King. This agreement is as follows:<sup>59</sup>

It is agreed that the bounds meares or dividend between his Roy<sup>ty</sup> High<sup>ty</sup> Territory in America and the Colony of Connecticut forever hereafter shall begin att a certain Brook or River Called Bryam Brooke or River which River is

<sup>57</sup> Thorpe, F. N., op. cit., vol. 1, p. 535. For a history of the claims made by Connecticut to a narrow strip of land called "the gore" along the forty-second parallel (the south line of New York) and to the "Western Reserve" see Report of the Regents [of New York] Boundary Commission upon the New York and Pennsylvania boundary, pp. 418 et seq., Albany, 1886.

<sup>58</sup> Thorpe, F. N., op. cit., p. 529.

<sup>59</sup> Report of the commissioner appointed to ascertain the boundary line between the States of New York and Connecticut, transmitted to the Legislature of New York, Apr. 10, 1857, p. 110, Albany, 1857.

between the Towns of Rye & Greenwich that is to say att the mouth of the said Brooke where it falleth into the Sound at a Point Called Lyon's Point which is the Eastward Point of Bryam River, and from the said Point to goe as the said River Runeth, to the place where the Common Road or Wading place over the said River is and from the said Road or Wading place to goe North North west into the Country soe farr as will be Eight English miles from the aforesaid Lyons Point, and that a Line of twelve Miles being measured from the said Lyons Point According to the Line or Generall Course of the Sound Eastward where the said twelve miles Endeth Another line shall be Runn from the Sound Eight miles into the Country North North West and alsoe that a fourth line be Runn that is to say from the North most end of the line first menconed unto the Northmost end of the Eight mile line being the third menconed line which fowrth line with the first menconed Line shall be the bounds where they shall fall to runn. And that from the Eastward End of the fowrth menconed Line (which is to be twelve miles in Length) A Line Paralell to Hudson's River in every place twenty miles distant from Hudson's River shall be the bounds there between the said Territory or Province of New Yorke, and the said Collony of Connecticutt soe farr as Connecticutt Doth Extend Northwards that is to the South line of the Massachusetts Collony.

Only it is Provided that in Case the Line from Bryams Brooke Mouth North North West Eight Miles and the line that is thence to runn twelve miles to the end of the third foremenconed line of Eight Miles Doe Diminish or take away any Land within twenty myles of Hudsons River that then soe much as is in Land Diminished of twenty miles from Hudsons River thereby shall be added out of Connecticutt bounds unto the Line aforementioned & Paralell to Hudsons River and Twenty miles Distant from it the addition to be made the whole Length of the said Paralell line and in such breadth as will make upp Quantity for Quantity what shall be diminished as aforesaid. \* \* \*

A survey of the southwestern part of the boundary was made in 1684 and ratified by both parties. It was then decided that in accordance with the agreement a tract of land estimated at 61,440 acres should be permanently released to Connecticut by New York, in exchange for which New York should receive an equivalent area in a tract of uniform width between the Sound tract and the south line of Massachusetts, but for various reasons the survey of the equivalent lands was not made at that time.

This settlement of the boundary dispute was never satisfactory to the settlers in the tract added to New York, who for the next 40 years endeavored to have the line moved west. Four sets of commissioners appointed successively for this purpose were unable to come to an agreement. A fifth set, appointed in 1725, entered into articles of agreement settling the manner of the survey, but they ran only the line bounding the tract on Long Island Sound. For some cause action was then suspended until 1731, when the commissioners of 1725 surveyed and set off the oblong or equivalent territory to New York, defining and marking its boundary, which was to remain

forever the dividing line between the respective Colonies. The line ran substantially as at present and is as follows:<sup>60</sup>

Beginning at Lyon's Point, in the mouth of a brook or river called Byram river, where it falls into Long Island sound, and running thence up along said river to a rock at the ancient road or wading place in said river, which rock bears north twelve degrees and forty-five minutes east, five hundred and fifty rods from said point; then north twenty-three degrees and forty-five minutes west, two thousand two hundred and ninety-two rods; then east-north-east, thirteen miles and sixty-four rods, which lines were established in the year one thousand seven hundred and twenty-five, by Francis Harrison, Cadwallader Colden, and Isaac Hicks, commissioners on the part of the then province of New York, and Jonathan Law, Samuel Eells, Roger Wolcott, John Copp, and Edmund Lewis, commissioners on the part of the then colony of Connecticut, and were run as the magnetic needle then pointed: then along an east-north-east continuation of the last-mentioned course, one mile, three-quarters of a mile, and twenty-one rods, to a monument erected in the year one thousand seven hundred and thirty-one by Cadwallader Colden, Gilbert Willett, Vincent Matthews, and Jacobus Bruyn, junior, commissioners on the part of said province, and Samuel Eells, Roger Wolcott, and Edmund Lewis, commissioners on the part of said colony; which said monument is at the southeast corner of a tract known and distinguished as the oblong or equivalent lands; then north twenty-four degrees and thirty minutes west, until intersected by a line run by said last-mentioned commissioners, on a course south twelve degrees and thirty minutes west, from a monument erected by them in the south bounds of Massachusetts, which monument stands in a valley in the Taghkanick mountains, one hundred and twenty-one rods eastward from a heap of stones, in said bounds on the top or ridge of the most westerly of said mountains; then north twelve degrees and thirty minutes east, from a monument erected by said last-mentioned commissioners at said place of intersection, and standing on the north side of a hill, southeasterly from the easternmost end of the long pond, along the aforesaid line to the aforesaid monument erected in the south bounds of Massachusetts, being the northeast corner of the oblong; \* \* \*

For more than a century no controversy arose, but after 1850 questions of jurisdiction were raised, and in 1855 Connecticut made a proposition for a new survey. Several sets of commissioners were appointed;<sup>61</sup> but no agreement being reached, finally, in 1860, pursuant to an act of the Legislature of New York, the line was run by the New York commissioners, Connecticut not being represented.

The first section of the act of the New York Legislature is as follows:

1. The commissioners appointed by the governor to ascertain the boundary line between the States of New York and Connecticut are hereby empowered and directed to survey and mark, with suitable monuments, the said line between the two States as fixed by the survey of 1731.

<sup>60</sup> New York Stat. 1829, vol. 1, pp. 61-65; Rev. Stat. 1882, vol. 1, pp. 127-128.

<sup>61</sup> See Report of commissioners appointed in 1856 to ascertain the boundary between the States of New York and Connecticut, Albany, 1857, which includes map and historical data.



The following is an abstract of the engineer's report of the line run under direction of the commissioners from New York, the Connecticut commissioners declining to be present or assist:

Beginning at the northwest corner of Connecticut, at the monument erected by the commissioners of New York and Connecticut in 1731, latitude  $42^{\circ} 02' 58.54''$ , longitude  $73^{\circ} 30' 06.66''$ ; thence south  $11^{\circ} 20'$  west, 464 chains, to the forty-seventh mile monument; <sup>a</sup> thence south  $12^{\circ} 34'$  west, 239 chains 57 links, to the forty-fourth mile monument point; thence south  $11^{\circ} 33'$  west, 160 chains, 99 links, to the forty-second mile monument; thence south  $13^{\circ} 16'$  west, 161 chains 24 links, to the fortieth mile monument point; thence south  $12^{\circ} 21'$  west, 398 chains 21 links, to the thirty-fifth mile monument; thence south  $12^{\circ} 32'$  west, 158 chains 96 links, to the thirty-third mile monument; thence south  $11^{\circ} 44'$  west, 243 chains 37 links, to the thirtieth mile monument; thence south  $12^{\circ} 27'$  west, 161 chains 32 links, to the twenty-eighth mile monument; thence south  $10^{\circ} 56'$  west, 160 chains, to the twenty-sixth mile monument point; thence south  $11^{\circ} 39'$  west, 320 chains 11 links, to the twenty-second mile monument; thence south  $12^{\circ} 18'$  west, 163 chains 17 links, to the twentieth mile monument; thence south  $11^{\circ} 49'$  west, 159 chains 9 links, to the eighteenth mile monument; thence south  $12^{\circ} 19'$  west, 157 chains 15 links, to the sixteenth mile monument; thence south  $10^{\circ} 11'$  west, 161 chains 7 links, to the fourteenth mile monument; thence south  $10^{\circ} 51'$  west, 313 chains 41 links, to the tenth mile monument point; thence south  $12^{\circ} 24'$  west, 155 chains 71 links, to the eighth mile monument; thence south  $10^{\circ} 19'$  west, 159 chains 28 links, to the sixth mile monument point; thence south  $12^{\circ} 10'$  west, 164 chains 42 links, to the fourth mile monument; thence south  $11^{\circ} 44'$  west, 158 chains 99 links, to the 2-mile monument; thence south  $14^{\circ} 10'$  west, 109 chains 41 links, to the Ridgefield angle monument; <sup>a</sup> thence south  $25^{\circ} 8'$  east, 213 chains 39 links, to the fourth mile monument on the east line of the oblong between the Wilton and Ridgefield angles; thence south  $24^{\circ} 48'$  east, 157 chains 63 links, to the 2-mile monument; thence south  $24^{\circ} 14'$  east, 167 chains 28 links, to the Wilton angle monument, or southeast corner of the oblong as set off by the commissioners of 1731; thence south  $67^{\circ} 45'$  west, 138 chains 76 links, to the southwest corner of the oblong, and being where the survey of 1725 terminated; thence south  $65^{\circ} 44'$  west, 90 chains 87 links, to a point considered the original twelfth mile monument point; thence south  $66^{\circ} 56'$  west, 241 chains 93 links, to a point called the ninth mile monument; thence south  $66^{\circ} 45'$  west, 319 chains 12 links, to the fifth mile monument point; thence south  $66^{\circ} 25'$  west, 398 chains 40 links, to the angle at the Duke's Trees; thence south  $23^{\circ} 38'$  east, 172 chains 93 links, to a point which is west-southwest and distant 32 rods from the chimney in the old Clapp house; thence south  $24^{\circ} 21'$  east, 224 chains 78 links, to a point opposite the old William Anderson house; thence south  $24^{\circ} 19'$  east, 173 chains 7 links, to the great stone at the ancient wading place on Byram River; thence south  $17^{\circ} 45'$  west, 12 chains 60 links, to a rock in the river which can be seen at low tide, in which there is a bolt; thence south  $27^{\circ}$  west, 55 chains 19 links; thence south  $7^{\circ} 20'$  east, 13 chains 45 links; thence south  $12^{\circ} 10'$  east, 16 chains 13 links; thence south  $2^{\circ} 40'$

<sup>a</sup> The mile monuments referred to are those at that time remaining which were established by the Connecticut and New York commissioners of 1731.

<sup>b</sup> The entire distance from the Massachusetts line to Ridgefield angle is 52 miles 35 rods, a difference of only 5 rods from the survey of 1731.

east, 9 chains 4 links; thence south  $28^{\circ} 25'$  east, 9 chains 54 links; thence south  $18^{\circ} 40'$  east, 4 chains 77 links; thence south  $11^{\circ} 55'$  west, 6 chains 33 links; thence south  $58^{\circ} 10'$  west, to where it falls into the sound.<sup>64</sup>

In 1880 commissioners were appointed by Connecticut and New York to settle the boundary between the two States. Their report was ratified in the same year. These commissioners reported as follows:

We agree that the boundary on the land constituting the western boundary of Connecticut and the eastern boundary of New York shall be and is as the same was defined by monuments erected by commissioners appointed by the State of New York, and completed in the year eighteen hundred and sixty, the said boundary line extending from Bryram Point, formerly called Lyon's Point, on the south, to the line of the State of Massachusetts on the north. And we further agree that the boundary on the sound shall be and is as follows: Beginning at a point in the center of the channel, about six hundred feet south of the extreme rocks of Bryram Point, marked No. 0, on appended United States coast survey chart; thence running in a true southeast course three and one-fourth statute miles; thence in a straight line (the arc of a great circle) northeasterly to a point four statute miles due south of New London light-house; thence northeasterly to a point marked number one, on the annexed United States coast survey chart of Fisher's island sound, which point is on the longitude east three-quarters north, sailing course down on said map, and is about one thousand feet northerly from the Hammock or North Dumpling lighthouse; thence following said east three-fourths north sailing course as laid down on said map easterly to a point marked number two on said map; thence southeasterly to a point marked No. 3 on said map; so far as said States are coterminous.<sup>65</sup>

The above agreement concerning these boundaries between Connecticut and New York was confirmed by the Congress of the United States February 26, 1881.<sup>66</sup>

For the history and present location of the eastern boundary of Connecticut, see Massachusetts, page 83, and Rhode Island, pages 87-88. For the northern boundary, see Massachusetts, pages 82-83.

Under the charter of 1662 Connecticut claimed a large western territory. Subsequent to the Revolution, however, in 1786, 1792, 1795, and 1800, she relinquished all title to any land west of her present boundary.

#### NEW YORK.

The territory included in the present State of New York is part of that claimed by both France and England by right of discovery. It was included in the territory of Acadia, for which a charter was given by Henry IV of France in 1603, and was included also within

<sup>64</sup> See Report of the commissioners to ascertain and settle the boundary line between the States of New York and Connecticut, Feb. 8, 1861, in which will also be found a complete account of this controversy.

<sup>65</sup> New York Rev. Stat., 1882, vol. 1, p. 136.

<sup>66</sup> 21 Stat. L., p. 351.

the limits of the Virginia colony, chartered by James I of England in 1606, which embraced all that part of America between 34 and 45 degrees north latitude. Much of the territory west of Hudson River was held by the French and Indians and was a source of dispute for many years. The Indian treaty of 1684 gave England nominal control, but the French were not finally dispossessed of their claim until nearly a hundred years later. The Dutch in 1613 established trading posts on the Hudson and claimed jurisdiction over the territory between Connecticut and Delaware rivers, which they called New Netherlands. The government was vested in the United New Netherland Co., chartered in 1616, and later in the Dutch West India Co., chartered in 1621.

In 1664 King Charles II of England granted to his brother, the Duke of York, a large territory in America, which included, with other lands, all that tract lying between the west bank of Connecticut River and the east bank of the Delaware. The Duke of York had previously purchased, in 1663, the territory on the New England coast which had been awarded to the Earl of Stirling, and in 1664, with an armed fleet, he took possession of New Amsterdam, which was thenceforth called New York. This conquest was confirmed by the treaty of Breda in 1667.

The following is an extract from the grant of 1664 to the Duke of York:<sup>67</sup>

We have given James Duke of York all that part of the maine land of New England beginning at a certaine place called or knowne by the name of St. Croix next adjoining to New Scotland in America and from thence extending along the sea coast unto a certain place called Petuaquine or Pemaquid and so up the River thereof to the furthest head of ye same as it tendeth northwards and extending from thence to the River Kinebequi and so upwards by the shortest course to the River Canada northward and also all that Island or Islands commonly called by the severall name or names of Matowacks or Long Island scituat lying and being towards the west of Cape Codd and ye narrow Higansetts abutting upon the maine land between the two Rivers there called or knowne by the severall names of Conecticut and Hudsons River together also with the said river called Hudsons River and all the land from the west side of Conecticut to ye east side of Delaware Bay and also all those severall Islands called, or knowne by the names of Martin's Vineyard and Nantukes otherwise Nantuckett.

In July, 1673, the Dutch recaptured New York, and they held it until it was restored to the English by the treaty of Westminster, in February, 1674.

The Duke of York thereupon, to perfect his title, obtained a new grant in substantially the same terms as that of 1664, of which the following is an extract:<sup>68</sup>

All that part of the main land of New England, beginning at a certaine place called or known by the name of St. Croix nexed adjoining to New Scotland in

<sup>67</sup> Thorpe, F. N., *The Federal and State constitutions*, vol. 3, p. 1637.

<sup>68</sup> *Idem*, p. 1641.

America, and from thence extending along the seacoast into a certain place called Petuaquine or Pemaquid, and so up the river thereof to the furthest head of the same as it windeth northward and extending from the river of Kinebeque and so upwards by the shortest course to the river Canada northwards: And all that island or Islands commonly called by the severall name or names of Matowacks or Long Islands, scituate and being towards the west of Cape Cod and the narrow Higansetts abutting upon the main land between the two rivers there called or known by the severall names of Connecticutt and Hudson's River, together also with the said river called Hudson's River, and all the lands from the west side of Connecticutt River to the east side of Delaware Bay; And also all those severall Islands called or known by the names of Martin Vin Yards and Nantukes, otherwise Nantucket.

By these grants to the Duke of York and the conquest of the Dutch possessions in America it will be seen that New York originally had a claim to a much larger territory than is now included in her limits. The successive changes in her extent may be sketched as follows:

In 1664 the Duke of York sold the present State of New Jersey to Lord John Berkeley and Sir George Carteret.

In 1682 the Duke of York sold to William Penn his title to Delaware and the country on the west bank of the Delaware, which had been originally settled by the Swedes but had been conquered by the Dutch and by them surrendered to the Duke of York.

In 1686 Pemaquid and its dependencies were annexed to the New England government by a royal order of the former Duke of York, who had succeeded to the throne of England.

By the charter of 1691 to Massachusetts Bay all claim to any part of Maine was extinguished, and the islands of Nantucket, Marthas Vineyard, and others adjacent (previously known as Duke's County, N. Y.) were annexed to Massachusetts Bay.

The territory west of Connecticut River to a line within about 20 miles of Hudson River, now forming portions of Massachusetts and Connecticut, was, by agreements and concessions made at different times, surrendered to those States, respectively.

New York by the cession of 1781 to the United States relinquished all its claim to land west of the meridian through the west extremity of Lake Ontario between the forty-second and forty-fifth parallels, and the peace treaty of 1783 cut off the rest of the area still claimed by the State west of its present limits. (See fig. 7.)

Massachusetts prior to 1786 claimed under its charters title to the soil, but not to the sovereignty, of a large area west of Hudson River that was also claimed by New York, but by agreement of commissioners representing the two States, signed on December 16, 1786, Massachusetts released to New York all land east of a meridian commencing on the Pennsylvania line 82 miles west of Delaware River and extending northward to Lake Ontario, except an area of 3,600



square miles east of that line to be selected by Massachusetts between the rivers "Owega and Chenengo."<sup>69</sup>

The next reduction in area was in 1791, when the consent of this State to the independence of Vermont was made effective by Congress. This left New York with substantially its present boundaries.

For the history and settlement of the eastern boundary of New York see Vermont, pages 71-72; Massachusetts, pages 85-86; and Connecticut, pages 89-93.

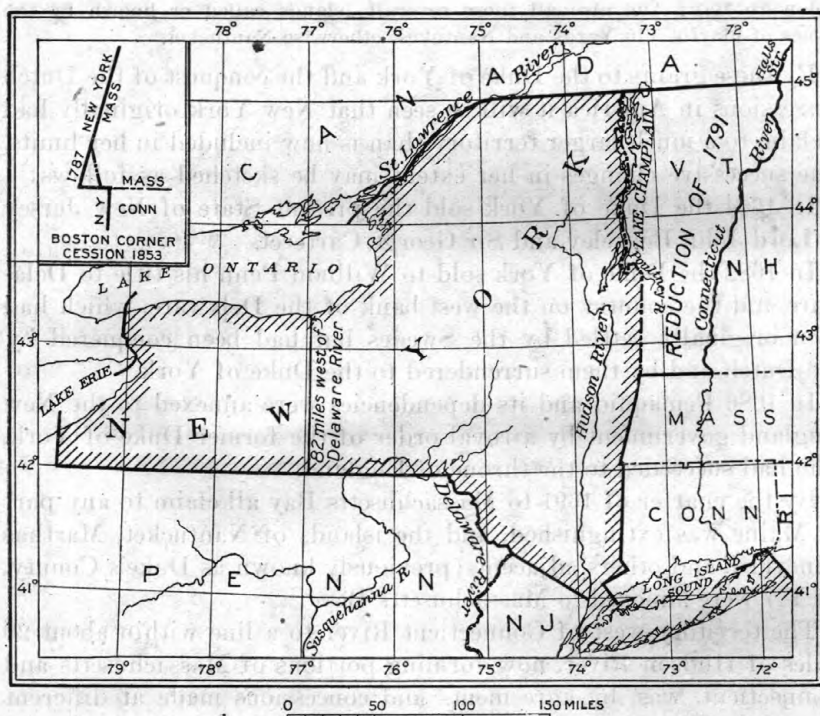


FIGURE 7.—Historical diagram of New York.

A bill passed by the Legislature of New York, approved March 29, 1922, provided for the resurvey of a part of the State boundary said to be in dispute, extending from the northwest corner of Connecticut about 12 miles southward.

The northern boundary was settled by the treaty of peace in 1783 and by the commission under the sixth article of the treaty of Ghent.

The boundary between New York and New Jersey was plainly stated in the grant by the Duke of York to Berkeley and Carteret. In 1719 attempts were made to have the line run and marked, but nothing seems to have been done till 1769, when commissioners were

<sup>69</sup> Report of the Regents of the University on the boundaries of the State of New York, vol. 1, pp. 219-220, Albany, 1874.

appointed by the King, who fixed on substantially the present line. In 1772 this line was accepted by both colonies, and in 1773 it was confirmed by the King in council. Commissioners were appointed to survey and mark the line, which was described as follows:<sup>70</sup>

A direct and straight line from the fork or branch formed by the junction of the stream or waters called the Machackamack with the river Delaware or Fishkill, in the latitude of  $41^{\circ} 21' 37''$ , to a rock on the west side of the Hudson River, marked by the said surveyors, in the latitude of  $41^{\circ}$ —said rock was ordered to be marked with the following words and figures, viz: "Latitude  $41^{\circ}$  north;" and on the south side thereof, "New Jersey;" and on the north side thereof, "New York;" also to mark every tree that stood on the line with five notches and a blaze on the northwest and southeast sides thereof, and to put up stone monuments, at 1 mile distance from each other, along the said line, and to number such monuments with the number of miles; the same shall be from the before-mentioned marked rock on the west side of Hudson's River, and mark the words "New Jersey" on the south side and the words "New York" on the north side of every of the said monuments.

In the year 1833 commissioners were appointed by New York and New Jersey for the settlement of the territorial limits and jurisdiction of the two States. The commissioners reached an agreement, which was ratified in 1834 by each State and was confirmed by Congress by an act approved June 28, 1834, providing as follows:<sup>71</sup>

ARTICLE FIRST. The boundary line between the two states of New York and New Jersey, from a point in the middle of Hudson river, opposite the point on the west shore thereof, in the forty-first degree of north latitude, as heretofore ascertained and marked, to the main sea, shall be the middle of the said river, of the Bay of New York, of the waters between Staten Island and New Jersey, and of Raritan Bay, to the main sea; except as hereinafter otherwise particularly mentioned.

ARTICLE SECOND. The state of New York shall retain its present jurisdiction of and over Bedloe's and Ellis's islands; and shall also retain exclusive jurisdiction of and over the other islands lying in the waters above mentioned and now under the jurisdiction of that state.

ARTICLE THIRD. The state of New York shall have and enjoy exclusive jurisdiction of and over all the waters of the bay of New York; and of and over all the waters of Hudson river lying west of Manhattan Island and to the south of the mouth of Spuytenduyvel creek; and of and over the lands covered by the said waters to the low water mark on the westerly or New Jersey side thereof; subject to the following rights of property and of jurisdiction of the state of New Jersey; that is to say:

1. The state of New Jersey shall have the exclusive right of property in and to the land under water lying west of the middle of the bay of New York, and west of the middle of that part of the Hudson river which lies between Manhattan island and New Jersey.

2. The state of New Jersey shall have the exclusive jurisdiction of and over the wharves, docks, and improvements, made and to be made on the shore of the said state; and of and over all vessels aground on said shore, or fastened to any such wharf or dock, except that the said vessels shall be subject to the

<sup>70</sup> New Jersey Stat. 1821, pp. 29-34.

<sup>71</sup> 4 Stat. L. 708. New York Rev. Stat. 1882, vol. 1, pp. 131-132.

quarantine or health laws and laws in relation to passengers, of the state of New York, which now exist or which may hereafter be passed.

3. The state of New Jersey shall have the exclusive right of regulating the fisheries on the westerly side of the middle of said waters, *Provided*, That the navigation be not obstructed or hindered.

ARTICLE FOURTH. The state of New York shall have exclusive jurisdiction of and over the waters of the Kill Van Kull between Staten Island and New Jersey to the westernmost end of Shooter's Island in respect to such quarantine laws, and laws relating to passengers as now exist or may hereafter be passed under the authority of that state, and for executing the same; and the said state shall also have exclusive jurisdiction for the like purposes of and over the waters of the sound from the westernmost end of Shooter's Island to Woodbridge creek as to all vessels bound to any port in the said state of New York.

ARTICLE FIFTH. The state of New Jersey shall have and enjoy exclusive jurisdiction of and over all the waters of the sound between Staten Island and New Jersey lying south of Woodbridge creek, and of and over all the waters of Raritan Bay lying westward of a line drawn from the light-house at Prince's bay to the mouth of Mattavan creek: subject to the following rights of property and of jurisdiction of the state of New York; that is to say:

1. The state of New York shall have the exclusive right of property in and to the land under water lying between the middle of the said waters and Staten Island.

2. The state of New York shall have the exclusive jurisdiction of and over the wharves, docks, and improvements made and to be made on the shore of Staten Island, and of and over all vessels aground on said shore or fastened to any such wharf or dock; except that the said vessels shall be subject to the quarantine or health laws and laws in relation to passengers of the state of New Jersey which now exist or which may hereafter be passed.

3. The state of New York shall have the exclusive right of regulating the fisheries between the shore of Staten Island and the middle of said waters: *Provided*, That the navigation of the said waters be not obstructed or hindered.

In 1876 commissioners were appointed to relocate the land boundary between New York and New Jersey and to replace monuments that had become dilapidated or destroyed or erect new ones. The commissioners found slight discrepancies between some of the original marks and the verbal descriptions thereof, and the legislature of each State ordered that the original monuments should be considered the true boundary.<sup>72</sup>

In 1874 the New Jersey Geological Survey resurveyed the land boundary between New Jersey and New York. The report by the State geologist, published in New Brunswick in 1874, contains a plat showing the divergence between the line as run and marked in 1774 by compass and the true arc of a great circle between the two terminals. The greatest divergence is at Greenwood Lake (mile 26 from Hudson River) and is 2,415 feet. Throughout its length the accepted boundary is south of the straight line and thus gives to New

<sup>72</sup> See New York S. Doc. 17 of 1875 and New York S. Doc. 20 of 1882.

York about 10 square miles of territory that was originally intended to be a part of New Jersey.

After this resurvey New Jersey proposed that New York should consent to a relocation of the boundary on the arc of a circle, but New York failed to concur. Later the two States accepted the line as marked in 1774 as a valid boundary and appointed commissioners, who re-marked the entire line in 1882 with granite monuments placed at each highway and railroad crossing and at the end of each mile, measured from the bank of the Hudson.<sup>73</sup>

In 1887 a joint commission of the two States was appointed to determine and mark the boundary between the two States through Raritan Bay. This commission came to an agreement, the terms of which are as follows:

*First.* From "Great Beds light-house," in Raritan bay, north, twenty degrees sixteen minutes west, true, to a point in the middle of the waters of Arthur Kill, or Staten Island Sound, equidistant between the southwesterly corner of the dwelling house of David C. Butler, at Ward's Point, on Staten Island, in the State of New York, at the southeasterly corner of the brick building on the lands of Cortlandt L. Parker, at the intersection of the westerly line of Water street with the northerly line of Lewis street, in Perth Amboy, in the State of New Jersey.

*Second.* From "Great Beds light-house," south, sixty-four degrees and twenty-one minutes east, true (S. 64° 21' E.), in line with the center of Waackaack or Wilson's beacon, in Monmouth County, New Jersey, to a point at the intersection of said line with a line connecting "Morgan No. 2" triangulation point, U. S. Coast and Geodetic Survey, in Middlesex County, New Jersey, with the "Granite and Iron beacon," marked on the accompanying maps as "Romer stone beacon," situated on the "Dry Romer shoal;" and thence on a line bearing north, seventy-seven degrees and nine minutes east, true (N. 79° 9' E.), connecting "Morgan No. 2" triangulation point, U. S. Coast and Geodetic Survey, in Middlesex County, New Jersey, with said "Romer stone beacon" (the line passing through said beacon and continuing in the same direction), to a point at its intersection with a line drawn between the "Hook beacon," on Sandy Hook, New Jersey, and the triangulation point of the U. S. Geodetic Survey, known as the Oriental Hotel, on Coney Island, New York; then south-easterly, at right angles with the last-mentioned line to the main sea.

*Third.* The monumental marks by which said boundary line shall be hereafter known and recognized are hereby declared to be as follows:

1. The "Great Beds light-house."
2. A permanent monument marked "State boundary line New York and New Jersey," and to be placed at the intersection of the line drawn from the "Great Beds light-house" to "Waackaack or Wilson's beacon," Monmouth County, New Jersey, and the line drawn from "Morgan No. 2" triangulation point, U. S. Coast and Geodetic Survey, in Middlesex County, New Jersey, to "Romer stone beacon."
3. Eight buoys or spindles, to be marked like the permanent monument above mentioned, and placed at suitable intervening points along the line from the said permanent monument to the "Romer stone beacon."
4. The "Romer stone beacon."

<sup>73</sup> Laws of New York for 1880 and Laws of New Jersey for 1881.



In the year 1774 commissions were appointed by New York and Pennsylvania to fix the "beginning of the forty-third degree" of north latitude (the forty-second parallel) on the Mohawk or western branch of Delaware River, which is the northeast corner of Pennsylvania, and to proceed westward and fix the line between Pennsylvania and New York. These commissioners reported in December of the same year that they had fixed the northeast corner of Pennsylvania and marked it as follows:<sup>74</sup>

in a small Island marked B in the Draught planted a Stone with the Letters NEW-YORK, 1774 Cut on one side and on the Top LAT. 42° VAR. 4° 20'. Thence due West on the West side of Delaware River, We collected a Heap of Stones at High Water mark and in the said West line 4 Perches distant, planted another Stone as at C with the Letters PENNSYLVANIA 1774 Cut on the South side and on Top Lat. 42° Var. 4° 20' and from thence due West 18 P. marked an Ash Tree. But the rigour of the Season prevented us from proceeding further.

Nothing further seems to have been done until 1786-87, when commissioners were appointed to finish the work thus begun, and the lines were run and monuments erected. The line was ratified by Pennsylvania in 1789, but no action was taken by the New York Legislature until the adoption of the revised statutes in 1829. The line is described as follows:<sup>75</sup>

A meridian line drawn through the most westerly bent or inclination of Lake Ontario; then south along said meridian line to a monument in the beginning of the forty-third degree of north latitude [on the forty-second parallel], erected in the year one thousand seven hundred and eighty-seven, by Abraham Hardenburgh and William W. Morris, commissioners on the part of this state, and Andrew Ellicott and Andrew Porter, commissioners on the part of the state of Pennsylvania, for the purpose of marking the termination of the line of jurisdiction between this state and the said state of Pennsylvania; then east along the line established and marked by said last mentioned commissioners to the ninetyeth milestone in the same parallel of latitude, erected in the year one thousand seven hundred and eighty-six, by James Clinton and Simeon DeWitt, commissioners on the part of this state, and Andrew Ellicott, commissioner on the part of Pennsylvania; which said ninetyeth milestone stands on the western side of the south branch of the Tioga River; then east along the line established and marked by said last mentioned commissioners, to a stone erected in the year one thousand seven hundred and seventy-four, on a small island in the Delaware river, by Samuel Holland and David Rittenhouse, commissioners on the part of the colonies of New York and Pennsylvania, for the purpose of marking the beginning of the forty-third degree of north latitude; then down along said Delaware river to a point opposite to the fork or branch formed by the junction of the stream called Mahackamack with the said Delaware river, in the latitude of forty one degrees, twenty-one minutes and thirty-seven seconds north; then in a straight line to the termination, on the east bank of the Delaware river of a line run in the year one thousand seven hundred and seventy-

<sup>74</sup> Commonwealth of Pennsylvania Sec. Int. Affairs Rept., p. 495, Harrisburg, 1887.

<sup>75</sup> Pennsylvania Stat. L., vol. 13, pp. 378-379, Harrisburg, Mitchell & Flanders, 1908. New York Rev. Stat., Albany, Banks & Bros., 1882.

four, by William Wickham and Samuel Gale, commissioners on the part of the then colony of New York, and John Stevens and Walter Rutherford, commissioners on the part of the then colony of New Jersey.

The meridian line forming part of the west boundary of New York was surveyed and marked in 1790 by Andrew Ellicott, as United States commissioner. The total length of the line to a stone post set on the shore of Lake Erie was later found to be 98,525 feet. In 1869 a large granite monument was set at a point 440 feet south of the lake-shore mark. The latitude of the new mark has since been found to be  $42^{\circ} 15' 58.4''$  and its longitude  $79^{\circ} 45' 44.9''$ .

In 1877 the position of the parallel of the forty-second degree of latitude was ascertained at four points and in 1879 at nine other points. The distances from the four points to the boundary line were found to be:

1. At Travis Station (Hale's Eddy), very near the east end of that part of the New York and Pennsylvania line supposed to be on the forty-second parallel, the old line was found to be 275 feet north of the parallel.
2. At Finn's Station (Great Bend), about 20 miles from east end, the line is 350 feet south of the parallel.
3. At Burt's Station (Wellsburg), about 70 miles from east end, the line is 760 feet north of the parallel.
4. At Clark's Station, nearly 225 miles from east end, the line is 150 feet north of the parallel.<sup>76</sup>

The calculated latitude of the southwest corner of New York is  $42^{\circ} 00' 01.42''$ , or very nearly 144 feet north of the true parallel, and its approximate longitude is  $79^{\circ} 45' 45''$ .

The New York-Pennsylvania boundary line was resurveyed in whole or in part in 1877-1879; between 1881 and 1885 all missing marks were replaced with granite posts. There are now 224 mile-stones on the forty-second parallel line and 18 on the meridian boundary, also a number of intermediate marks at county corners and other points.<sup>77</sup> This boundary as now located was ratified by congressional act of April 19, 1890.

#### NEW JERSEY.

Although the original grant of 1606 from the English sovereign covered the territory forming the present State of New Jersey, the first grant that directly relates to New Jersey is that given in 1664

<sup>76</sup> For positions of other points see Report of the Regents' Boundary Commission upon the New York and Pennsylvania boundary, with final report of the surveyor for the Commission: New York S. Doc. 71, 1886, pp. 271-279.

<sup>77</sup> For references to Pennsylvania-New York boundary surveys and marks see Cary and Riorden, *Laws of Pennsylvania*, vol. 3, p. 392, and Reports of the Regents of the University of the State of New York: New York S. Doc. 108 for 1873, Assembly Doc. 91 for 1879, Assembly Doc. 49 for 1870, Assembly Doc. 100 for 1880, S. Doc. 20 for 1882, S. Doc. 71 for 1886, 26 Stat. L. 333, etc. On page 258 of S. Doc. 71, 1886, there is a description of the southwest corner of New York.

by the Duke of York to Lord John Berkeley and Sir George Carteret, two months before the setting out of his expedition to take possession of New York.

The following extract from that grant defines the boundaries:<sup>78</sup>

all that tract of land adjacent to New England, and lying and being to the westward of Long Island and Manhitas Island, and bounded on the east part by the main sea and part by Hudson's river, and hath upon the west Delaware bay or river, and extended southward to the main ocean as far as Cape May, at the mouth of the Delaware bay, and to the northward as far as the northernmost branch of the said bay or river of Delaware, which is forty-one degrees and forty minutes of latitude,<sup>79</sup> and crosseth over thence in a straight line to Hudson's river, in forty-one degree of latitude; which said tract of land is hereafter to be called by the name or names of New Caeserea or New Jersey.

In March, 1673, Lord Berkeley sold his undivided moiety of New Jersey to John Fenwick, by whom, in the following year, it was again sold. On July 1, 1676, was executed the famous "Quintipartite deed" by which the eastern part was given to Sir George Carteret, to be called east New Jersey, and the western part to William Penn and other proprietors, to be called west New Jersey. Sir George Carteret, at his death in 1678, left his land to be sold. It was sold in 1682 to the 12 proprietors, who admitted other partners.

Confirmation grants were made to the proprietors of both Provinces by the Duke of York and confirmed by the King, but between 1697 and 1701 the proprietors repeatedly made petitions to be allowed to surrender their right of government to the Crown. In 1702 the surrender was made and was accepted by Queen Anne, and the two parts were united and made the province of New Jersey.

For the history of the northern and eastern boundaries see New York, pages 96-99.

The grant from the Duke of York to Berkeley and Carteret defined the west boundary of New Jersey to be Delaware River (see above).

The line between New Jersey and Delaware is thus described in the Revised Statutes of Delaware:

Low-water mark on the eastern side of the river Delaware, within the twelve-mile circle from New Castle and the middle of the bay, below said circle.

In 1876 the Legislature of New Jersey authorized the governor to commence a suit in the Supreme Court of the United States to settle the boundary between New Jersey and Delaware. New Jersey claimed jurisdiction to the middle of the Delaware, so far as the river and bay is a boundary between the two States.<sup>80</sup> The suit com-

<sup>78</sup> Thorpe, F. N., op. cit., vol. 5, p. 2534.

<sup>79</sup> This point, now called the Tri-State Rock, has since been found to be at latitude 41° 21' 22.6" and longitude 74° 41' 40.7".

<sup>80</sup> Laws of the State of New Jersey, revised, p. 57, Trenton, 1821.

menced under this act was "dismissed without prejudice," April, 1917.<sup>81</sup>

In 1783 commissioners were appointed by New Jersey and Pennsylvania to settle the jurisdiction of Delaware River and the islands within it. Their report was ratified and is in part as follows:<sup>82</sup>

*First.* It is declared that the river Delaware from the station point or northwest corner of New Jersey, northerly<sup>83</sup> to the place upon the said river where the circular boundary of the State of Delaware toucheth upon the same, in the whole length and breadth thereof, is and shall continue to be and remain a common highway, equally free and open for the use, benefit, and advantage of the said contracting parties, etc.

*Secondly.* That each State shall enjoy and exercise a concurrent jurisdiction, within and upon the water, and not upon the dry land between the shores of said river.

The rule laid down in the act of December 5, 1782, for apportioning the islands was that they should be assigned to the State

to which such insulated dry land doth lie nearest, at the time of making and executing this agreement; and that all other islands within said river between the falls of Trenton and the State of Delaware, which are not hereinafter particularly enumerated, shall be hereafter deemed and considered as parts and parcels of the State, to which such island doth lie nearest at the date hereof; \* \* \* islands hereafter formed \* \* \* shall be classed and annexed \* \* \* according to the same principal.

Biles Island, near Trenton; Windmill Island, opposite Philadelphia; League Island, Mud or Fort Island, Hog Island, and little Tinicum Island were assigned to Pennsylvania. To New Jersey were given Biddles or Newbolds, Burlington, Pettys, Red Bank, Harmanus, Helms, Chester, and Shiversis islands.<sup>84</sup>

In 1786 commissioners were appointed by New Jersey and Pennsylvania for more accurately determining and describing the islands mentioned in the foregoing agreement—that is, those in the Delaware from the northwest corner of New Jersey down to the falls of Trenton. Their report was ratified, and numerous islands designated by name in the act were annexed to each State.<sup>85</sup>

#### PENNSYLVANIA.

The Swedish West India Co., chartered by the King of Sweden in 1625, established the first permanent settlement on the west bank of the Delaware, occupying a part of the territory now in Pennsylvania and Delaware, although the Dutch had previously estab-

<sup>81</sup> 205 U. S. 550.

<sup>82</sup> Revision of the Statutes of New Jersey, pp. 1181–1182, Trenton, 1877.

<sup>83</sup> This is a mistake. The line runs south.

<sup>84</sup> Revision of the statutes of New Jersey, pp. 1181–1182, Trenton, 1877.

<sup>85</sup> There is a brief description of the boundaries in New Jersey State Geologist Final Rept., vol. 4, appendix, Trenton, 1898.



lished trading posts, which had been destroyed by the Indians. The Swedes acquired, by successive purchases from the Indian chiefs, all the land extending from Cape Henlopen to the great falls of the Delaware and called it New Sweden. In 1655 this territory was surrendered to the Dutch.<sup>86</sup>

By the conquest of the New Netherlands, in 1664, the Duke of York seems to have claimed successfully the settlements on the west bank of the Delaware as part of his dominions.

In 1681 Charles II of England granted to William Penn the Province of Pennsylvania. The following extract from the charter defines the boundaries:<sup>87</sup>

all that Tract or Parte of Land in *America*, with all the Islands therein conteyned, as the same is bounded on the East by *Delaware* River, from twelve miles distance Northwards of *New Castle* Towne unto the three and fortieth degree of Northerne Latitude, if the said River doeth extende so farre Northwards; But if the said River shall not extend soe farre Northward, then by the said River soe farr as it doth extend; and from the head of the said River the Easterne Bounds are to bee determined by a Meridian Line, to bee drawne from the head of the said River, unto the said three and fortieth Degree. The said Lands to extend westwards five degrees in longitude, to bee computed from the said Easterne Bounds; and the said Lands to bee bounded on the North by the beginning of the three and fortieth degré of Northern Latitude, and on the South by a Circle drawne at twelve miles distance from *New Castle* Northward and Westward unto the beginning of the fortieth degree of Northern Latitude, and thence by a streight Line Westward to the Limitt of Longitude above mentioned.

The following explanation regarding the use of the word "beginning" in connection with degrees of latitude in this grant is given by Donaldson:<sup>88</sup>

It should be observed that the geographers of that day considered degrees of latitude as zones taking designation from their northern parallels; hence the north boundary of Pennsylvania, designated as the beginning of the forty-third degree, is really the forty-second parallel. The south boundary, being the beginning of the fortieth degree, was really the thirty-ninth parallel, a construction for which Penn earnestly contended in his dispute with Lord Baltimore in relation to the boundary between Pennsylvania and Maryland.

Sumner W. Cushing<sup>89</sup> says: "The idea of a parallel of latitude seems to be a band about the earth parallel to the Equator and one degree wide, with the 'beginning' nearest the Equator."

The grant to William Penn included a large tract of land in the northeastern part of the present State of Pennsylvania, generally referred to as the Wyoming Valley, which was claimed by Connec-

<sup>86</sup> Hazard, Samuel, *Annals of Pennsylvania*, p. 185, Philadelphia, 1850.

<sup>87</sup> Thorpe, F. N., *op. cit.*, vol. 5, p. 3036.

<sup>88</sup> Donaldson, Thomas, *The public domain, its history with statistics*, p. 46, Washington, 1884.

<sup>89</sup> Assoc. Am. Geographers *Annals*, vol. 10, p. 33, 1920.

ticut under its charter of 1662. (See fig. 8.) The Indian title to this land was transferred to settlers from Connecticut by deed dated July 11, 1754, wherein the area was thus described:<sup>90</sup>

Beginning from the one and fortieth degree of north latitude, at ten miles distance east of Susquehanna River, and from thence, with a northerly line ten miles east of the river, to the forty-second, or beginning of the forty-third degree of north latitude, and to extend west two degrees of longitude, one hundred and twenty miles, and from thence south to the beginning of the forty-second degree, and from thence east to the aforementioned bounds  
\* \* \*

This area was organized by Connecticut in 1776 as the county of Westmoreland. The conflicting claims of Connecticut and Pennsyl-

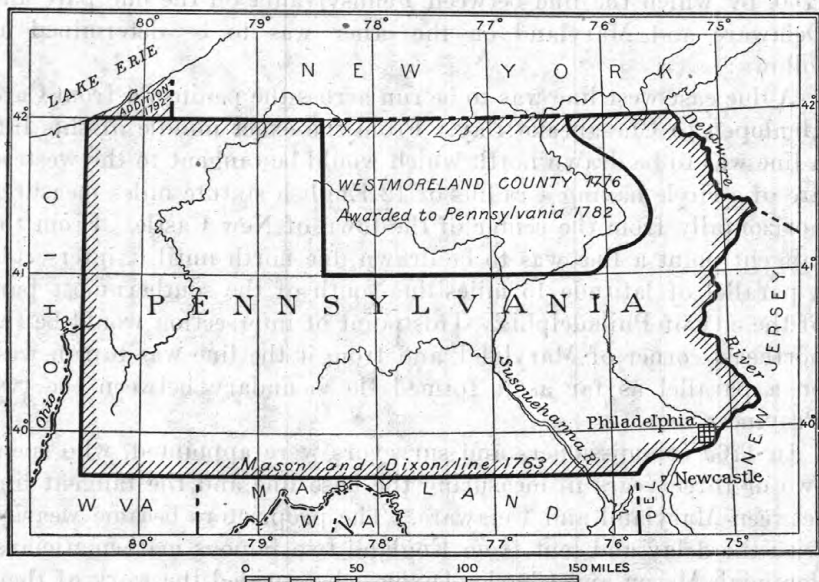


FIGURE 8.—Historical diagram of Pennsylvania.

vania to this land were for many years a cause of dispute, and several battles were fought for its possession, but a court of arbitration appointed by the Continental Congress awarded it to Pennsylvania in 1782.

For a history of the northern and eastern boundaries of Pennsylvania see New York, pages 100–101, and New Jersey, page 103.

That part of the southern boundary of Pennsylvania which separates Pennsylvania from Delaware, as defined by the charter of 1681, is an arc of a circle of 12 miles radius, having New Castle, Del., as its center. This line was surveyed and marked in 1701 under a warrant from William Penn.

According to the original grant of 1681, the boundary between Pennsylvania and Maryland was to be the "beginning of the fortieth

<sup>90</sup> Miner, W. P., *History of Wyoming*, p. 69, Philadelphia, 1845. See also Stone, W. L., *Poetry and history of Wyoming*, 2d ed., appendix, New York, 1844.

degree of northern latitude," or what we would now call the thirty-ninth parallel of latitude. (See p. 104.) This boundary was for many years in dispute, Lord Baltimore claiming the country along Delaware Bay and River to the mouth of the Schuylkill, which was also claimed by the Duke of York under his grant of 1664. William Penn, in 1682, obtained from the Duke of York a release of his claim, but not until 1760 was an agreement reached with Maryland. Commissioners were appointed in 1732 and again in 1739 to run the line, but they failed to agree, and chancery suits were the result. Finally a decision of Lord Chancellor Hardwick in 1750 was taken as a basis for adjudication, and an agreement was signed July 4, 1760, by which the line between Pennsylvania on the one part and Delaware and Maryland on the other was to be determined as follows:

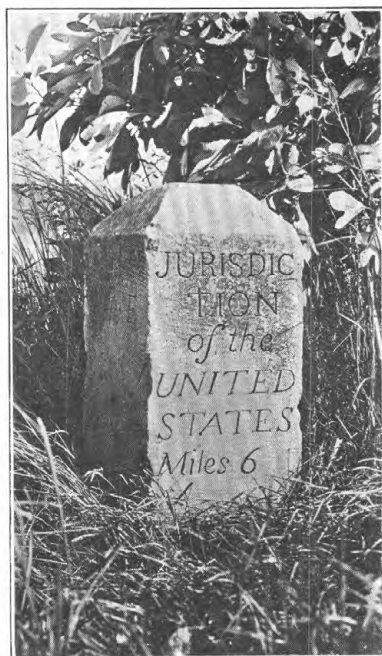
A due east-west line was to be run across the peninsula from Cape Henlopen to Chesapeake Bay. From the exact middle of this line a line was to be drawn north which would be tangent to the western arc of a circle having a radius of 12 English statute miles measured horizontally from the center of the town of New Castle. From the tangent point a line was to be drawn due north until it intersected a parallel of latitude 15 miles due south of the southernmost part of the city of Philadelphia. This point of intersection would be the northeast corner of Maryland, and from it the line was to run west on a parallel as far as it formed the boundary between the two Provinces.

In 1760 commissioners and surveyors were appointed, who spent two or three years in measuring the base line and the tangent line between Maryland and Delaware. The proprietors became wearied with the delay and sent from England two famous mathematicians, Jeremiah Mason and Charles Dixon, who verified the work of their predecessors and ran the line between Pennsylvania and Maryland, ever since called the "Mason and Dixon line" and probably the most widely known State boundary in the United States. (See fig. 8.) Mason and Dixon determined the latitude of this line, which they located 15 miles south of Philadelphia, to be  $39^{\circ} 43' 17.6''$ . That they were skilled and did their work carefully is shown by the fact that by the resurvey, made 130 years later with modern instruments and methods, the position found for the line at the northeast corner of Maryland differed only  $2.3''$  from that determined by them. The later position is  $39^{\circ} 43' 19.91''$ . (See p. 111.)

Mason and Dixon began work on this line in 1763 but were stopped by Indians in 1767, after having run the line about 244 miles west of the Delaware (230 miles 18 chains 21 links from the northeast corner of Maryland) and thus not quite finishing the work as



A.



B.



C.

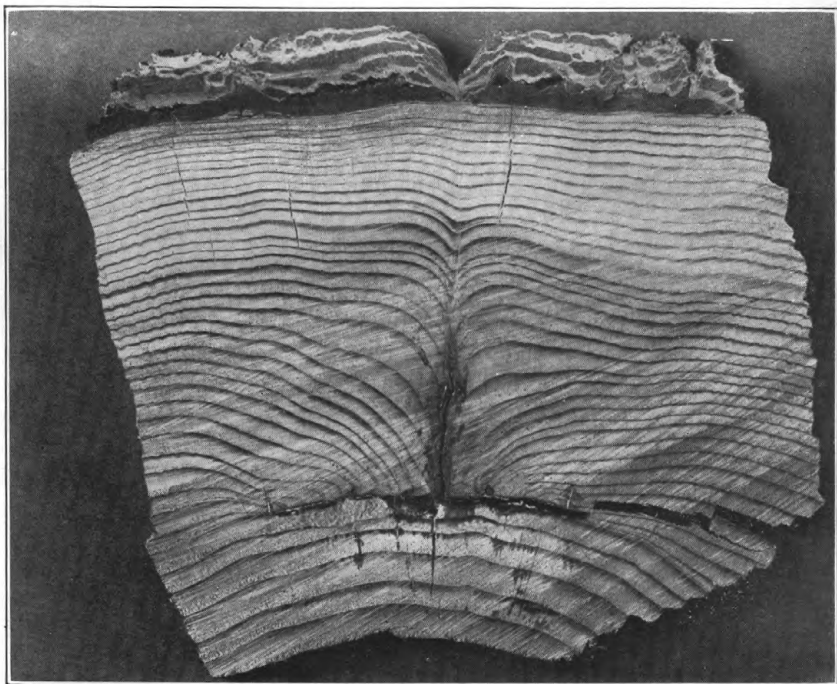


D.

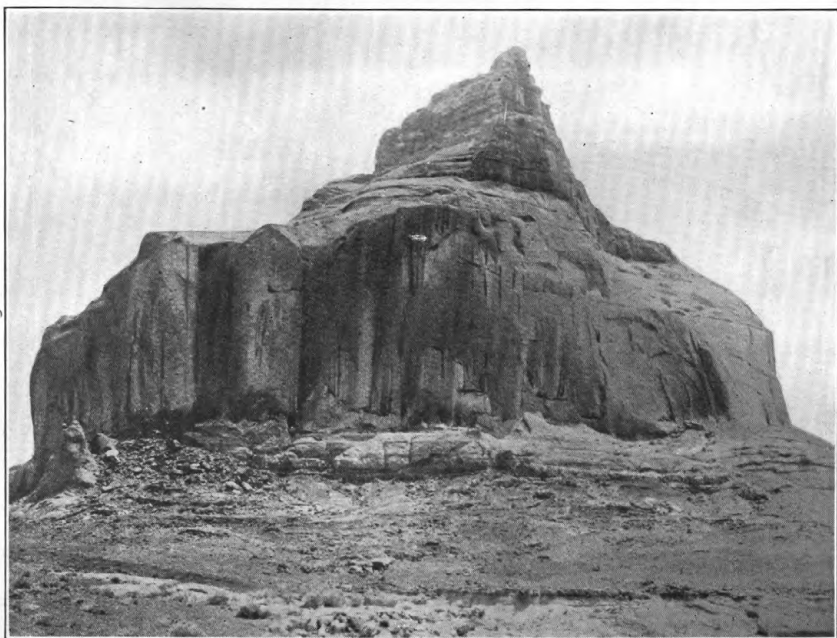
TYPICAL BOUNDARY MARKS, OLD AND NEW.

A, Monument No. 20 on the Mason and Dixon line; B, Boundary stone between the District of Columbia and Maryland; C, A Texas-New Mexico boundary stone; D, Mark at the south-east corner of New Mexico.





A. SECTION OF A TREE THAT HAD BEEN USED AS A BOUNDARY MARK.



B. STATE LINE BUTTE, ON UTAH-ARIZONA LINE.

planned, although it has since been ascertained that they had run about 30 miles beyond the northwest corner of Maryland. They set stone monuments, most of which were brought from England, at mile intervals for all but the western part of the line.

In 1889 and 1900 the Legislatures of Pennsylvania and Maryland authorized the appointment of a joint commission to "ascertain and re-mark" the common boundary between the two States. The final report of the joint commission<sup>91</sup> is dated January 25, 1907. It contains an excellent bibliography of publications relating to the line. No changes in the line as run by Mason and Dixon were made; straight lines were run between original monuments, and many new stones were set on the lines thus established. There are now 225 stone monuments on the line, including many of the original monuments which were repaired and reset. (See Pl. V, A.) The original marks for 5-mile points were carved in England from oolitic limestone. Lord Baltimore's coat of arms is on the Maryland side and the Penn arms on the side facing Pennsylvania. Intermediate milestones were smaller and marked "M" and "P" only, on opposite sides.

Because of the removal of the stone at the northeast corner of Maryland and for other reasons, it was deemed desirable to resurvey and re-mark the State boundaries in that locality; consequently Maryland (in 1846), Delaware (in 1847), and Pennsylvania (in 1849) authorized the appointment of commissioners to undertake the task. An Army officer was delegated by them to make the surveys, which were completed in 1850.

In the resurvey of the arc boundary and of the adjacent lines the surveyor in charge unfortunately disregarded "the well-known rule that an actual line upon the ground is to be preferred to the written description of the same line in a deed." He changed the position of the arc boundary as marked in 1701 and assigned to Pennsylvania the triangular strip about  $3\frac{1}{2}$  miles in length (about 900 acres in area) west of the arc boundary, east of Maryland and south of the Mason and Dixon line, which had previously been assumed to belong to Delaware. This survey was approved by the commissioners from the three States, but no formal action regarding it appears to have been taken by the State legislatures.<sup>92</sup>

These changes were for a long time the cause of disputes between Pennsylvania and Delaware, which resulted in authority being granted in 1889 by the legislatures for the appointment of commis-

<sup>91</sup> Report on the resurvey of the Maryland-Pennsylvania boundary part of the Mason and Dixon line, published by authority of the Assembly of Pennsylvania, 1909.

<sup>92</sup> For report of the surveyor see Delaware Senate Jour. for 1851, pp. 56-109.

sioners to reestablish the boundary between the two States. The commissioners agreed that the northern boundary of Delaware should run due east from the northeast corner of Maryland to a point 12 miles from the New Castle courthouse and thence follow a curved line passing through as many boundary marks of the 12-mile circle of 1701 as could be identified. The resurvey was made,<sup>93</sup> and 46 marks were set on the arc boundary in 1892-93. The triangular tract assigned to Pennsylvania by the commissioners of 1849 thus reverted to Delaware.

The report of the commission and the line as marked by it were "accepted, approved, and confirmed" by the Legislature of Pennsylvania by act of June 22, 1897,<sup>94</sup> but were not formally accepted by the Legislature of Delaware until March 28, 1921. The assent of Congress to the action of the States was given on June 30, 1921.<sup>95</sup>

Commissioners from Virginia and Pennsylvania agreed in 1779 that the boundary between Virginia and Pennsylvania should be fixed as follows:<sup>96</sup>

That the line commonly called *Mason's and Dixon's line* be extended due west five degrees of longitude to be computed from the river *Delaware*, for the southern boundary of *Pennsylvania*; and that a meridian drawn from the western extremity thereof to the northern limits of the said states, respectively, be the western boundary of *Pennsylvania* forever.

In order to locate the boundaries as thus described observations of the eclipses of Jupiter's satellites were made in 1784 at Wilmington and at a point estimated to be 5° of longitude west of Delaware River. While this work was being done the Mason and Dixon line was extended westward by commissioners from Virginia (one of whom was Andrew Ellicott) and from Pennsylvania, and a point was marked for the southwest corner of Pennsylvania, which the astronomic computations showed should be a little more than 1½ miles east of the assumed position, where the observatory had been placed. From the southwest corner of Pennsylvania the meridian boundary was run to the north side of Ohio River. Between the Ohio and Lake Erie the line was surveyed and marked in 1785 by another commission.

The southern part of the west boundary was again surveyed and marked in 1883 by commissioners representing the two States. The survey was commenced at the Ohio, and the line was run south to the southwest corner of Pennsylvania, a measured distance of a little more than 63½ miles. Twenty-three of the old monuments were found

<sup>93</sup> For a report of this survey and a historical sketch of the Mason and Dixon line see U. S. Coast and Geodetic Survey Rept. for 1893, Appendix 8, pp. 177-222.

<sup>94</sup> Pennsylvania laws for 1897, p. 183.

<sup>95</sup> 42 Stat. L. 104.

<sup>96</sup> Pennsylvania Sec. Internal Affairs, Rept. for 1887, p. 293. Henning, W. W., Virginia Stat. L., vol. 10, pp. 519-537, 1882.

and 48 new ones were established. Astronomic positions of several marks on this boundary were determined in 1883 in connection with the resurveys. Two of these positions are as follows: Southwest corner of Pennsylvania, latitude  $39^{\circ} 43' 18.2''$ , longitude  $80^{\circ} 31' 08.2''$ ; near Smiths Ferry on Ohio River, latitude  $40^{\circ} 38' 27.2''$ , longitude  $81^{\circ} 31' 07.5''$ .

The Ohio-Pennsylvania boundary was resurveyed and re-marked in 1881, commencing at a granite monument 6 feet high and 3 feet square at the base, which was erected by the commissioners at a point 2,400 feet south of the edge of Lake Erie. The position of this monument was determined as latitude  $41^{\circ} 58' 21.5''$ , longitude  $80^{\circ} 31' 18.2''$ . From this point the line was run south to Ohio River, a distance of 92 miles.<sup>97</sup>

The monument established in 1785 on the northern bank of the Ohio in the west boundary of Pennsylvania is of considerable historical importance, for it marks the point from which the first surveys for dividing public land in the United States into ranges and townships were commenced.<sup>98</sup> This general system of surveys has been extended over all the public-land States and has even been adopted by some foreign countries.

By the formation of the State of Ohio from lands ceded to the United States by Virginia in 1784 and by Connecticut in 1800 and the separation of West Virginia from Virginia in 1862 the above-mentioned meridian line became the boundary between Pennsylvania on the east and Ohio and West Virginia on the west.

The cession of 1781 by New York to the United States included an isolated triangle of land bounded by New York, Pennsylvania, and Lake Erie. In order to give Pennsylvania an outlet to the lake, this tract, known as the "Erie triangle," was sold by the General Government to that State for \$151,640.25, and the deed, dated March 3, 1792, was signed by George Washington.

The east line of the Erie triangle, being part of the west boundary of New York, was first surveyed and marked in 1790. In 1869 a new granite monument was placed on this boundary near the lake, the position of which was determined as latitude  $42^{\circ} 15' 57.9''$ , longitude  $79^{\circ} 45' 54.4''$ . In 1885 this monument was repaired and the boundary was rerun to the south line of New York, a distance of a little more than 18 miles. In all, there were then 51 marks on the line.<sup>99</sup>

<sup>97</sup> For other details concerning the survey of the west boundary of Pennsylvania see Pennsylvania Sec. Internal Affairs Rept. for 1887, pp. 323, 324, 395, 396, 401, 418, 466.

<sup>98</sup> See plat of the Seven ranges of townships, Ohio Surveys, 1785-1787, U. S. General Land Office files No. 57, Ohio; Peters, W. E., Ohio lands and their subdivision, pp. 33 and 67, Athens, Ohio, 1918.

<sup>99</sup> See Pennsylvania Sec. Internal Affairs Rept. for 1887, pp. 590, 592, Harrisburg, 1887.



## DELAWARE.

The area now forming the State of Delaware was originally settled by the Swedes. In 1655 it was surrendered to the Dutch, who in turn, in 1664, surrendered it to the English; it was then taken possession of by the Duke of York.

William Penn, who had received in 1681 a grant of the Province of Pennsylvania, bought or leased from the Duke of York the territory included in the present State of Delaware, which was conveyed to him by two deeds of "feoffment" dated August 24, 1682. One conveyed a tract of land within a 12-mile circle about New Castle; the other was for "all that tract of land upon Delaware River and Bay beginning 12 miles south from the town of New Castle and extending south to the Horekills, otherwise called 'Lopen.'" Both leases were to be for a period of 10,000 years, but they conveyed land to which the Duke of York then had a very uncertain title. A better title was obtained by royal grant soon afterward and immediately transferred to William Penn.<sup>1</sup> Lord Baltimore vigorously opposed William Penn's claim, and the matter was settled in 1685 by a royal order to divide the territory equally between the two claimants. For a description of the line as marked see pages 105-107.<sup>2</sup>

In 1701 William Penn granted a charter under which the Province of Pennsylvania and the territories (as Delaware was then called) were authorized to act as separate governments, though both were still under the proprietary government of William Penn.

Acting on the advice of the Continental Congress, the people of Delaware called a convention, which met at New Castle in August, 1776, and on September 10 adopted a constitution for the three counties that had previously been known as "the Government of the counties of New Castle, Kent, and Sussex, upon Delaware," and declared that thereafter the Territory should be called "Delaware State," the boundaries then being substantially as at present.<sup>3</sup>

For a history of the boundary between Delaware and Pennsylvania, see Pennsylvania, pages 105-108, and for that between Delaware and New Jersey, see New Jersey, pages 102-103.

From 1732 to 1769 there was a controversy between the proprietors of Pennsylvania and Maryland in regard to boundaries. The boundaries of Delaware on the south and west were determined as follows:

Beginning at Cape Henlopen and running due west 34 miles 309 perches; thence in a straight line 81 miles 78 chains and 30 links up

<sup>1</sup> See Assembly of Pennsylvania Report on the resurvey of the Mason and Dixon line, p. 150, 1909, and a similar report by Maryland, Maryland Geol. Survey Special Pub., vol. 7, Baltimore, 1908.

<sup>2</sup> See also Dallas, A. J., *Laws of the Commonwealth of Pennsylvania*, 1797, vol. 1, appendix, p. 24.

<sup>3</sup> Thorpe, F. N., *op. cit.*, vol. 1, pp. 561, 562.

the peninsula until it touches and makes a tangent to the western periphery of a circle drawn at the horizontal distance of 12 English statute miles from the center of the town of New Castle.

From this tangent point a line was run due north till it cut a parallel of latitude 15 miles due south of the most southern part of the city of Philadelphia. This point of intersection is the northeast corner of Maryland. As the tangent line bears a little west of north, the due north line from the tangent point cuts off an arc of the 12-mile circle. The narrow segment thus formed is a part of Delaware and has an area of less than 20 acres. The boundary line follows the arc of the circle from the tangent point around to the point where the due north line intersects the 12-mile circle, then follows this due north line to the northeast corner of Maryland. The length of this due north line is 5 miles 1 chain and 50 links, as given by Mason and Dixon.<sup>4</sup>

The following geographic positions on the Delaware boundary were determined from the survey of 1892:

The "tangent point," the southern of the two points where the 12-mile circle intersects the Maryland east boundary, latitude  $39^{\circ} 38' 56.95''$ , longitude  $75^{\circ} 47' 20.04''$ .

The northeast corner of Maryland, a point on the Mason and Dixon line, latitude  $39^{\circ} 43' 19.91''$ , longitude  $75^{\circ} 47' 20.03''$ . The southeast corner of Pennsylvania, where the Mason and Dixon line intersects the 12-mile circle, latitude  $39^{\circ} 43' 19.91''$ , longitude  $75^{\circ} 46' 26.69''$ . These two corners are 0.79 mile apart.

The terminal monument on Delaware River on the Pennsylvania-Delaware line, latitude  $39^{\circ} 48' 27.92''$ , longitude  $75^{\circ} 25' 31.53''$ .

By the survey of 1849 the distance between the tangent point and the north end of the curve on the Maryland boundary is 7,743.7 feet, which would make the latitude of the latter point  $39^{\circ} 40' 13.47''$ . The stone set in 1849 at this point was thus described:<sup>5</sup>

At the point of junction of the three States, a triangular prismatic post of cut granite, 18 inches wide on each side, and 7 feet long, was inserted  $4\frac{1}{2}$  feet of its length into the ground. It occupies the exact spot on which the old unmarked stone was found. It is marked with the letters M. P. and D., on the sides facing, respectively, towards the States of Maryland, Pennsylvania, and Delaware. On the north side, below the letter P., are the names of the commissioners, in deep cut letters, namely: H. G. S. Key, of Md., J. P. Eyre, of Pa., G. R. Riddle, of Del., Commissioners, with the date 1849.

This post is still in place, but now it is a mark on the boundary between Delaware and Maryland only, not a tri-State monument.

<sup>4</sup> See Delaware S. Jour., 1851, p. 56; Pennsylvania, Rept. Secy. Internal Affairs for 1887, p. 349. See U. S. Coast and Geodetic Survey Rept. for 1893, pp. 192-193, for more recent measurements.

<sup>5</sup> Delaware S. Jour. for January, 1851, p. 102.

There was some confusion regarding the location of Cape Henlopen. The place chosen as the starting point for the south boundary line of Delaware is not the same as the present cape of that name. Lord Chancellor Hardwick said regarding its position

that Cape Henlopen ought to be deemed \* \* \* at the place where \* \* \* laid down on the map or plan annexed to the said articles.

William Penn directed that Cape Henlopen be called Cape James or Jomus.<sup>6</sup> The present Cape Henlopen was then called Cape Cornelis.<sup>7</sup>

The foregoing statements explain the discrepancy between the base line across the peninsula and the position of Cape Henlopen on modern maps.

#### MARYLAND.

The territory embraced in the present State of Maryland was included in the previous charters of Virginia, but nevertheless, in 1632, Lord Baltimore received a royal charter of the Province of Maryland, whose boundaries are defined in the following extract, translated from the original charter, which was in Latin:<sup>8</sup>

all that part of the Peninsula, or Chersonese, lying in the Parts of America, between the Ocean on the East and the Bay of Chesapeake on the West; divided from the Residue thereof by a right line drawn from the Promontory, or Headland called Watkins Point, situate upon the Bay aforesaid, near the River Wigloo on the West, unto the main Ocean on the East; and between that Boundary on the South, unto that part of the Bay of Delaware on the North, which lieth under the fortieth degree of north latitude from the Equinoctial, where New England is terminated; And all the Tract of Land within the Metes underwritten (that is to say), passing from the said Bay, called Delaware Bay, in a right line, by the Degree aforesaid, unto the true meridian of the first fountain of the River Pattowmack; thence verging towards the South unto the farther Bank of the said River, and following the same on the West and South unto a certain Place called Cinquack, situate near the mouth of said River, where it disembogues into the aforesaid Bay of Chesapeake, and thence by the shortest Line unto the aforesaid Promontory or Place, called Watkin's Point, so that the whole tract of land divided, by the Line aforesaid, between the main Ocean and Watkin's Point unto the promontory called Cape Charles, \* \* \* may entirely remain forever excepted to Us.

By comparing the limits laid down in this charter with the several charters of Virginia and the charter and deeds to William Penn it will be seen that there was a conflict of boundaries on both sides of the Maryland grant. The history of the long controversy with Pennsylvania has already been given. (See Pennsylvania, pp. 105-108, and Delaware, pp. 110-111.) Virginia claimed the territory under her charters and for a time seemed disposed to assert her claim,

<sup>6</sup> Hazard, Samuel, op. cit., p. 606.

<sup>7</sup> Idem, p. 5.

<sup>8</sup> Thorpe, F. N., op. cit., vol. 3, p. 1678.

though in 1638 a proclamation by the governor and council of Virginia recognized the Province of Maryland and forbade trade with the Indians within the limits of Maryland without the consent of Lord Baltimore previously obtained.<sup>9</sup> Virginia's claim was finally given up by a treaty or agreement made in 1658, and her relinquishment was reaffirmed in the charter of 1776.<sup>10</sup>

In 1663 the Virginia Assembly ordered a survey of the line between Virginia and Maryland on the peninsula and declared it to be "from Watkins Point east across the peninsula." They defined Watkins Point "to be the north side of Wicomicoe River on the eastern shore and neere unto and on the south side of the straight limbe opposite to Patuxent River."<sup>11</sup>

In 1668 commissioners were appointed by Maryland and Virginia to fix the boundary across the peninsula. Their report, dated June 25, 1668,<sup>12</sup> is as follows:

After a full and perfect view taken of the point of land made by the north side of Pocomoke Bay and south side of Annemessexs Bay have and do conclude the same to be Watkins Point, from which said point so called, we have run an east line, agreeable with the extreamest part of the westernmost angle of the said Watkins Point, over Pocomoke River to the land near Robert Holston's, and there have marked certain trees which are so continued by an east line running over Swansecutes Creeke into the marsh of the seaside with apparent marks and boundaries.

Virginia, by the adoption of her constitution of 1776, relinquished all claim to territory covered by the charter of Maryland, thereby fixing Maryland's western boundary as follows:

Commencing on a true meridian of the first fountain of the river Pattawmack, thence verging towards the south unto the further bank of the said river and following the same on the west and south unto a certain place called Cinquack, situate near the mouth of said river where it disembogues into the said aforesaid bay of Chesapeake, and thence by the shortest line unto the aforesaid promontory or place called Watkins Point; thence a right line to the main ocean on the east.

The boundaries thus described are substantially the present boundaries, but for many years after they were adopted they remained a matter of controversy.

In the constitution of 1776 Virginia "reserved the property of the Virginia shores or strands [of Potomac and Pocomoke rivers] \* \* \* and all improvements which have or will be made thereon." Maryland, in 1785, assented to this and declared<sup>13</sup> that

<sup>9</sup> Bozman, J. L., *History of Maryland from 1633 to 1660*, vol. 2, p. 586, Baltimore, 1837.

<sup>10</sup> Thorpe, F. N., *op. cit.*, vol. 7, p. 3818.

<sup>11</sup> Hening, W. W., *Virginia Stat. L. from 1619 to 1792*, vol. 2, p. 184.

<sup>12</sup> Maryland Hist. Soc. Coll. State Papers, vol. 4 LCB, pp. 63-64.

<sup>13</sup> 217 U. S. 579-580; Thorpe, F. N., *op. cit.*, vol. 7, p. 3818.



the citizens of each State \* \* \* shall have full property on the shores of the Potomac \* \* \* with all emoluments and advantages thereunto belonging, and with the privilege of making and carrying out wharves and other improvements.

In 1786 a compact<sup>14</sup> was entered into between the States of Maryland and Virginia, but as this referred more particularly to the navigation and exercise of jurisdiction of the waters of Chesapeake Bay and Potomac and Pocomoke rivers, it is not given here.

From 1821 to 1858 legislation was frequently enacted in regard to the Virginia boundary. In 1858 commissioners were appointed by Maryland and Virginia, respectively, who, with the assistance of Lieut. N. Michler, United States Engineers, undertook the survey of the lines.

In 1860 the Governor of Virginia, under a resolution of the legislature, appointed an agent and sent him to England to collect records and documentary evidence bearing on this question, but the Civil War ensuing, nothing further was done until 1867, when legislation again commenced.

The question of this boundary was referred to arbitrators by an agreement made in 1874, in which each State bound itself to accept their award as final and conclusive. In 1877 the arbitrators made the following award:<sup>15</sup>

Beginning at the point on the Potomac River where the line between Virginia and West Virginia strikes the said river at low-water mark, and thence following the meanderings of said river, by the low-water mark to Smith's Point at or near the mouth of the Potomac, in the latitude  $37^{\circ} 53' 8''$ , and longitude  $76^{\circ} 13' 46''$ ; thence crossing the waters of the Chesapeake Bay, by a line running north  $65^{\circ} 30'$  east, about nine and a half nautical miles, to a point on the western shore of Smith's Island at the north end of Sassafras Hammock, in latitude  $37^{\circ} 57' 13''$ , longitude  $76^{\circ} 2' 52''$ ; thence across Smith's Island south  $88^{\circ} 30'$  east five thousand six hundred and twenty yards to the center of Horse Hammock, on the eastern shore of Smith's Island, in latitude  $37^{\circ} 57' 8''$ , longitude  $75^{\circ} 59' 20''$ ; thence south  $79^{\circ} 30'$  east four thousand eight hundred and eighty yards to a point marked A on the accompanying map, in the middle of Tangier Sound, in latitude  $37^{\circ} 56' 42''$ , longitude  $75^{\circ} 56' 23''$ , said point bearing from Janes Island light\* south  $54^{\circ}$  west, and distant from that light three thousand five hundred and sixty yards; thence south  $10^{\circ} 30'$  west four thousand seven hundred and forty yards by a line dividing the waters of Tangier Sound, to a point where it intersects the straight line from Smith's Point to Watkins Point, said point of intersection being in latitude  $37^{\circ} 54' 21''$ , longitude  $75^{\circ} 56' 55''$ , bearing from Janes Island light south  $29^{\circ}$  west and from Horse Hammock south  $34^{\circ} 30'$  east; this point of intersection is marked B on the accompanying map. Thence north  $85^{\circ} 15'$  east six thousand seven hundred and twenty yards along the line above mentioned, which runs from Smith's Point to Watkins Point until it reaches the latter spot, namely, Watkins Point, which is in latitude  $37^{\circ} 54' 38''$ , longitude  $75^{\circ} 52' 44''$ ; from Watkins Point

<sup>14</sup> Hening, W. W., op. cit., vol. 13, p. 50.

<sup>15</sup> 20 Stat. L. 481-482. In the original report the degrees of latitude and longitude are given in words; they are here put in figures for convenient reference.

the boundary line runs due east seven thousand eight hundred and eighty yards, to a point where it meets a line running through the middle of Pocomoke Sound, which is marked C on the accompanying map, and is in latitude  $37^{\circ} 54' 38''$ , longitude  $75^{\circ} 47' 50''$ ; thence by a line dividing the waters of Pocomoke Sound north  $47^{\circ} 30'$  east five thousand two hundred and twenty yards, to a point in said sound marked D on the accompanying map, in latitude  $37^{\circ} 56' 25''$ , longitude  $75^{\circ} 45' 26''$ ; thence following the middle of the Pocomoke River by a line of irregular curves, as laid down on the accompanying map, until it intersects the westward protraction of the boundary line marked by Scarborough and Calvert, May 28th, 1668, at a point in the middle of the Pocomoke River, and in the latitude  $37^{\circ} 59' 37''$ , longitude  $75^{\circ} 37' 4''$ ; thence by the Scarborough and Calvert line, which runs  $5^{\circ} 15'$  north of east, to the Atlantic Ocean: the latitudes, longitudes, courses, and distances here given have been measured upon the Coast Chart No. 33 of the United States Coast Survey (sheet No. 3, Chesapeake Bay).

\* \* \* \* \*

The middle thread of the Pocomoke River is equidistant as nearly as may be between the two shores without considering arms, inlets, creeks, or affluents as parts of the river, but measuring the shore from headland to headland.

\* \* \* The low water mark on the Potomac to which Virginia has a right in the soil, is to be measured by the same rule.

The original charter to Lord Baltimore embraced Potomac River to high-water mark on the south or Virginia shore,<sup>16</sup> but the arbitrators of 1877 changed the boundary to the low-water line, giving as their reason for doing so the long occupation by Virginia of the land above that line; they declared that "the length of time that raises a right of prescription in private parties likewise raises such a presumption in favor of States as well as private parties," and that "Virginia, from the earliest period of her history, used the south bank of the Potomac as if the soil to low-water mark had been her own."<sup>17</sup> The award of the arbitrators was accepted by the legislatures of the two States and was approved by act of Congress March 3, 1879.<sup>18</sup>

In 1879 and 1880 acts were passed by the Legislatures of Maryland and Virginia to appoint commissioners and to request the General Government to designate one or more officers of the Engineer Corps to survey and mark this line and erect monuments thereon, but little of permanent value seems to have been accomplished.<sup>19</sup>

Commissioners were appointed by the States of Maryland and Virginia in 1916

to mark and maintain with buoys placed at intervals of not more than one mile apart the line between the waters of the State of Maryland and the waters of the State of Virginia, from Cedar Straights in Pocomoke Sound to Williams Point in Pocomoke River.

<sup>16</sup> 174 U. S. 225.

<sup>17</sup> 217 U. S. 580.

<sup>18</sup> 20 Stat. L. 481.

<sup>19</sup> See a brief report on the boundary between Maryland and Virginia in U. S. Coast and Geodetic Survey Rept. for 1890, pp. 621-623.

Their report, dated December, 1916, with descriptions of marks established and some historical matter, was published in Baltimore in 1917.

Commissioners appointed in 1859 by Virginia and Maryland surveyed a line for the western boundary of Maryland from the "Fairfax Stone" (see p. 125), at the "first fountain" of the Potomac, north to the Pennsylvania line. This survey was accepted by Maryland but not by Virginia, nor was it accepted by West Virginia when made a State. An area of about 40 square miles remained in dispute until 1910, when commissioners appointed by the United States Supreme Court and acting under its direction resurveyed the line and placed the initial point, which thereby became the southwest corner of Maryland, on the south bank of the North Branch of Potomac River, 3,989 feet from the Fairfax Stone on a line N. 0° 56' E. from it. From that point (monument No. 1) the line

crosses the said North Branch of the Potomac, and thence running northerly, as near as may be, with the Deakins or old State line to the line of the State of Pennsylvania.

The "Deakins line" followed the boundaries of old land grants made by Maryland and Virginia and, as reestablished in 1910 by the commissioners, is a broken line with a general bearing a little east of north. There are five offsets in the line, which run nearly east and west and range in length from 54 to 971 feet. A large concrete monument was erected at each angle and many at intermediate points, 60 in all, on the line, which is nearly 36 miles long.

The following quotation from the report, dated October 31, 1911, of the commissioners to the Supreme Court of the United States, which was confirmed by the court at its October term, 1911, shows how boundary lines are often determined<sup>20</sup> (see Pl. VI, A):

a large anciently marked white oak tree. \* \* \* This tree was cut and blocks were taken out by your commissioners which showed surveyors' axe marks in the wood; one 130 years old, one 117 years, and the last 78 years, thus indisputably establishing this course as following the oldest marked line extant.

The computed position of the Fairfax Stone is latitude 39° 11' 41.92'', longitude 79° 29' 15.50''. Monument No. 1 is in latitude 39° 12' 21.34'', longitude 79° 29' 14.67'', and the monument on the Mason and Dixon line is in latitude 39° 43' 15.88'', longitude 79° 28' 37.72''. These positions are referred to the North American datum.

From monument No. 1 the boundary between Maryland and West Virginia runs along the south bank of the North Branch of the Potomac till it strikes the line between Virginia and West Virginia.

<sup>20</sup> 225 U. S. 3.

## DISTRICT OF COLUMBIA.

On September 5, 1774, the Continental Congress met at Philadelphia. Two years later it adjourned to Baltimore. During the Revolution and subsequent to the treaty of peace it met in various places. After the end of the war much debate took place in regard to the location of a permanent seat of the Government of the United States. Several States made propositions to Congress, offering to cede certain lands for the purpose, but no determination of the location was made by Congress until 1790.

On December 23, 1788, the State of Maryland passed the following act:

*Be it enacted by the general assembly of Maryland,* That the representatives of this State in the House of Representatives of the Congress of the United States, appointed to assemble at New York on the first Wednesday of March next, be, and they are hereby, authorized and required on the behalf of this State to cede to the Congress of the United States any district in this State, not exceeding ten miles square, which the Congress may fix upon and accept for the seat of government of the United States.

In the following year (December 3, 1789), the State of Virginia passed a similar act, of which the following is an extract:

*Be it therefore enacted by the general assembly,* That a tract of country not exceeding ten miles square or any lesser quantity, to be located within the limits of the State and in any part thereof as Congress may by law direct, shall be, and the same is hereby, forever ceded and relinquished to the Congress and Government of the United States, in full and absolute right and exclusive jurisdiction, as well of said soil as of persons residing or to reside thereon, pursuant to the tenor and effect of the eighth section of the 1st article of the Constitution of the Government of the United States.

After long discussion Congress, in view of the foregoing cessions by Maryland and Virginia, passed an act, approved July 16, 1790, from which the following is an extract:<sup>21</sup>

That a district of territory, not exceeding ten miles square, to be located as hereafter directed on the river Potomac, at some place between the mouths of the Eastern Branch and Connogochegue, be, and the same is hereby, accepted for the permanent seat of the government of the United States: *Provided, nevertheless,* That the operation of the laws of the State within such district shall not be affected by this acceptance until the time fixed for the removal of the Government thereto, and until Congress shall otherwise by law provide. \* \* \*, three commissioners, who, or any two of whom, shall, under the direction of the President, survey, and by proper metes and bounds define and limit, a district of territory, under the limitations above mentioned; and the district so defined, limited, and located shall be deemed the district accepted by this act for the permanent seat of the Government of the United States. \* \* \*, That on the first Monday in December, in the year 1800, the seat of the Government of the United States shall, by virtue of this act, be transferred to the district and place aforesaid.

<sup>21</sup> 1 Stat. L. 130.



In 1791 the foregoing act was amended, in order to include a portion of Anacostia River ("Eastern Branch") and the town of Alexandria within the limits of the District.

The following is an extract from the act of amendment, approved March 3, 1791:<sup>22</sup>

\* \* \*, That so much of the act entitled "An act for establishing the temporary and permanent seat of the government of the United States" as requires that the whole of the district of territory, not exceeding ten miles square, to be located on the river Potomac for the permanent seat of the government of the United States, shall be located above the mouth of the Eastern Branch, be, and is hereby, repealed, and that it shall be lawful for the President to make any part of the territory below the said limit and above the mouth of Hunting Creek, a part of the said district, so as to include a convenient part of the Eastern Branch, and of the lands lying on the lower side thereof, and also the town of Alexandria; and the territory so to be included shall form a part of the district not exceeding ten miles square for the permanent seat of the government of the United States, in like manner and to all intents and purposes as if the same had been within the purview of the above recited act: *Provided*, That nothing herein contained shall authorize the erection of the public buildings otherwise than on the Maryland side of the river Potomac, as required by the aforesaid act.

In pursuance of the foregoing acts, three commissioners were appointed, who made surveys of the territory, and on March 30, 1791, President Washington issued a proclamation, in which the bounds of the District were defined as follows:

Beginning at Jones's Point, being the upper cape of Hunting Creek, in Virginia, and at an angle in the outset of 45 degrees west of the north, and running in a direct line 10 miles for the first line; then beginning again at the same Jones's Point and running another direct line at a right angle with the first across the Potomac, 10 miles for a second line; then, from the termination of the said first and second lines, running two other direct lines, of ten miles each, the one crossing the Eastern Branch aforesaid, and the other the Potomac, and meeting each other in a point.

In 1800 Congress removed to this District. In 1801 the District was divided into two counties, as follows:<sup>23</sup>

\* \* \* the said district of Columbia shall be formed into two counties; one county shall contain all that part of said district which lies on the east side of the river Potomac, together with the islands therein, and shall be called the county of Washington; the other county shall contain all that part of said district which lies on the west side of said river, and shall be called the county of Alexandria; and the said river, in its whole course through said district, shall be taken and deemed to all intents and purposes to be within both of said counties.

In 1846 Congress passed an act retroceding to the State of Virginia that part of the District of Columbia originally ceded to the

<sup>22</sup> 1 Stat. L. 214.

<sup>23</sup> 2 Stat. L. 105.

United States by Virginia. The following is an extract from this act:<sup>24</sup>

That with assent of the people of the county and town of Alexandria, to be ascertained as hereinafter prescribed, all of that portion of the District of Columbia ceded to the United States by the State of Virginia, and all the rights and jurisdiction therewith ceded over the same, be, and the same are, hereby ceded and forever relinquished to the State of Virginia in full and absolute right and jurisdiction, as well of soil as of persons residing or to reside thereon.

The method prescribed for ascertaining the assent of the people of Alexandria was by viva voce vote of free white male citizens, to be taken before five commissioners appointed by the President.

The passage of this act made the southern boundary of the District of Columbia coincident with that part of the boundary of Maryland prior to December 23, 1788, regarding which the United States Supreme Court stated<sup>25</sup>

that upon all the evidence, the charter granted to Lord Baltimore, by Charles I, in 1632, of the territory known as the Province of Maryland, embraced the Potomac River and the soil under it, and the islands therein, to high-water mark on the southern or Virginia shore; \* \* \* nor was such grant affected by the subsequent grant to Lord Culpepper.

Congress in the act<sup>26</sup> approving the award of the arbitrators of 1877 for the States of Maryland and Virginia provided that nothing therein contained "shall be construed to impair or in any manner affect any rights of jurisdiction of the United States in and over the islands and waters" [of the Potomac].

Below are given extracts from an opinion by the Attorney General dated January 16, 1912, relating to the high-water line on the south bank of the Potomac as the boundary line between the District of Columbia and the State of Virginia.

In the Potomac River there is a high-water line due to freshets at 13 feet above mean low tide. There is a high-tide line not influenced by freshets or caused by high winds at 8.8 feet above mean low tide. There is a mean high tide at about 5 feet above mean low water, and that is the elevation along which drift, trash, etc., remain as an indication; and there is a mean tide line at 3 feet above low water.

High water mark in a river or stream is "the point to which the water usually rises in an ordinary season of high water."<sup>27</sup>

"High-water mark is to be determined not from human records but from the records which the river makes for itself," and the true line is "that which the river impressd upon the soil as the limit of its dominion."<sup>28</sup>

High-water mark is coordinate with the limit of the bed of the water; and that only is to be considered the bed which the water occupies sufficiently long

<sup>24</sup> 9 Stat. L. 35-36.

<sup>25</sup> 174 U. S. 225.

<sup>26</sup> 20 Stat. L. 481.

<sup>27</sup> *Johnson v. Knott*, 13 Oregon 308.

<sup>28</sup> *Houghton v. The Chicago D. & M. R. Co.*: 47 Iowa, 370-373.

and continuously to wrest it from vegetation and destroy its value for agricultural purposes.<sup>29</sup>

Farnham (*Waters and water rights*, vol. 2, p. 1461), gives the following as to high-water mark:

"But the definition which best meets all requirements of the case and which has in fact been adopted by the weight of authority is that 'high-water mark is the point below which the pressure and action of the water are so common and usual and so long continued in all ordinary years as to make upon the soil a character distinct from that of the banks with respect to vegetation as well as with respect to the soil itself.'"<sup>30</sup>

If the mean high tides at the 5-foot elevation above low-water mark appear to be the most usual line reached under all ordinary circumstances when the river is undisturbed either by freshets, unusual winds, and high tides, or unaffected by droughts, which condition is usually evidenced by drifts and other deposits, and to which line the rise is most constant, the pressure and action of the water upon the soil making the line more definite than at any other point, then the 5-foot mean high-tide line established by the action of the water above mean low water is legally the high-water mark or high-tide line, and consequently the boundary line.

In a Supreme Court decision rendered November 7, 1921,<sup>31</sup> involving the question whether the boundary between the District of Columbia and Virginia runs from "headland to headland," as the Maryland-Virginia boundary does, or follows the meanderings of the river, the latter course was accepted. The court also decided that the United States is entitled to the possession of land in the District that has been reclaimed by filling in below low-water line on the Virginia side.

The District Court of Appeals, in a decision rendered November 6, 1922, recognized the claim that high-water mark on the south bank of the Potomac is the boundary between the District of Columbia and Virginia.

The District of Columbia was planned to be exactly 10 miles square, but it has been found that the northeast side measures 263.1 feet and the southeast side 63.1 feet more than 10 miles. The lines do not bear exactly 45° from the meridian, but the greatest variation is only 1¼'.<sup>32</sup> The entire boundary of the District of Columbia was surveyed in 1791 and was marked with sandstone mileposts in 1792. These posts, except those at the four corners, were numbered from 1 to 9, counting clockwise, for each of the four boundary lines. The stone shown in Plate V, *B*, after standing 130 years, is still in so good condition that the inscription on the side facing the District of Columbia can be read easily in the engraving; the inscription

<sup>29</sup> *Carpenter v. Board of Comrs., Hennepin County*: 56 Minn. 513.

<sup>30</sup> The following cases are in harmony with the authorities quoted above: *Howard v. Ingersoll*, 13 Howard, 415-423; *Gould on Waters*, 3d ed., 106; *Shively v. Bowlby*, 152 U. S. 12.

<sup>31</sup> *Marine Railway and Coal Company v. United States of America*: 257 U. S. 47.

<sup>32</sup> For data regarding surveys and boundary marks see *Nat. Geog. Mag.*, vol. 6, pp. 149-165.

on the opposite side is "Maryland"; that on the left is the declination of the compass,  $0^{\circ} 18' E.$ ; on the right is the year the stones were placed, 1792. The part of the stone above ground measures 12 by 12 by 24 inches.

In 1915-1921 each of the original boundary stones was surrounded by an iron fence, erected by the District of Columbia and Virginia societies of the Daughters of the American Revolution.

By a bill approved March 3, 1903,<sup>33</sup> funds were provided for additional marks on the District of Columbia-Maryland boundary line, to be placed at road crossings and at other prominent points. The work was completed the same year, but without the formal cooperation of any Maryland representative. The new marks are of cut granite, 6 inches square on top, and project 12 inches above ground.

### VIRGINIA.

In 1606 King James I of England granted the "first charter" of Virginia. The boundaries therein described are as follows:<sup>34</sup>

situate, lying, or being all along the Sea Coasts, between four and thirty degrees of *Northerly* Latitude from the Equinoctial Line and five and forty degrees of the same Latitude, and in the main Land between the same four and thirty and five and forty Degrees and the Islands thereunto adjacent, or within one hundred Miles of the coast thereof.

In 1609 a new charter was granted, called the "second charter" of Virginia, which defines the boundaries in the following terms<sup>35</sup> (see fig. 9):

situate, lying, and being in that part of America, called *Virginia*, from the point of Land, called Cape or *Point Comfort*, all along the Sea Coast to the northward, two hundred miles, and from the said point of *Cape Comfort*, all along the Sea Coast to the Southward, two hundred Miles, and all that Space and Circuit of Land, lying from the Sea Coast of the Precinct aforesaid, up into the Land, throughout from Sea to Sea, West and Northwest; And also all the Islands lying within one hundred Miles along the Coast of both Seas of the precinct aforesaid.

In 1611-12 the "third charter" of Virginia was granted, which was an enlargement of the second. It gave the following territory:<sup>36</sup>

all and singular those Islands whatsoever, situate and being in any Part of the Ocean Seas bordering upon the Coast of our said first Colony in *Virginia*, and being within three Hundred Leagues of any of the Parts heretofore granted to the said Treasurer and Company in our former Letters Patent as aforesaid, and being within or between the one-and-fortieth and thirtieth Degrees of *Northerly* Latitude.

The charter of 1609 gave Virginia a strip of land bordering on the coast for 200 miles northward from Point Comfort and for the same

<sup>33</sup> 32 Stat. L. 961.

<sup>34</sup> Thorpe, F. N., op. cit., vol. 7, p. 3783.

<sup>35</sup> Idem, p. 3795.

<sup>36</sup> Idem, p. 3804.



distance southward and extending inland west and northwest to the "South Seas."<sup>37</sup> A point 200 miles due north of Point Comfort would fall in latitude  $39^{\circ} 54'$ , or about 13 miles north of the present south boundary of Pennsylvania. An irregular line 200 miles long, measured along the coast from Point Comfort, would reach about as far north as the Pennsylvania boundary. A point 200 miles due south from Point Comfort would fall in latitude  $34^{\circ} 06'$ . The territory included within these boundaries comprised, wholly or in part, the present States of Pennsylvania, New Jersey, Delaware, Maryland, North Carolina, and South Carolina and the vast region stretching west and northwest to the Pacific Ocean, which was then generally called the "South Seas."

The charter of 1611-12 added the Bermuda Islands to Virginia.

In 1625 the colony was changed to a royal province, the three charters having been canceled by judgment of the Court of Kings Bench in the preceding year,<sup>38</sup> but Virginia still claimed the boundaries fixed by the charters.

The description "west and northwest" left the northern boundary of the colony poorly defined, but it was more definitely fixed when reductions in area were made by the charters to Maryland in 1632 and to Pennsylvania in 1681. The Connecticut charter of 1662 practically made the parallel of  $41^{\circ}$  the northern boundary. (See p. 89.) The charters of Carolina in 1663 and 1665 changed the southern boundary to its present statute position.

The area of Virginia was still further reduced by the French treaty of 1763, which made Mississippi River the west boundary, by the cession to the United States of the territory northwest of Ohio River in 1784, by the admission of Kentucky as an independent State in 1792, by the division in 1862 when the new State of West Virginia was created and admitted to the Union, and finally by the transfer of two counties to West Virginia in 1866. (See fig. 9.)

By the constitution of 1776 Virginia formally gave up all claim to the territory now appertaining to the neighboring States of Maryland, Pennsylvania, North Carolina, and South Carolina, as will be seen by the following extract:

The territories contained within the Charters erecting the Colonies of Maryland, Pennsylvania, North and South Carolina are hereby ceded, released, and forever confirmed, to the people of these Colonies, respectively, with all the rights of property, jurisdiction, and government, and all the rights whatsoever, which might at any time heretofore, have been claimed by Virginia, except the free navigation and use of the rivers Patomaque and Pokomoke, with the property of the Virginia shores and strands, bordering on either of said rivers, and

<sup>37</sup> Mar del Sur (South Sea) was the name given to the Pacific Ocean by Balboa in 1513, when he first saw it at a place where the shore line runs nearly east and west.

<sup>38</sup> Donaldson, Thomas, op. cit., p. 33.

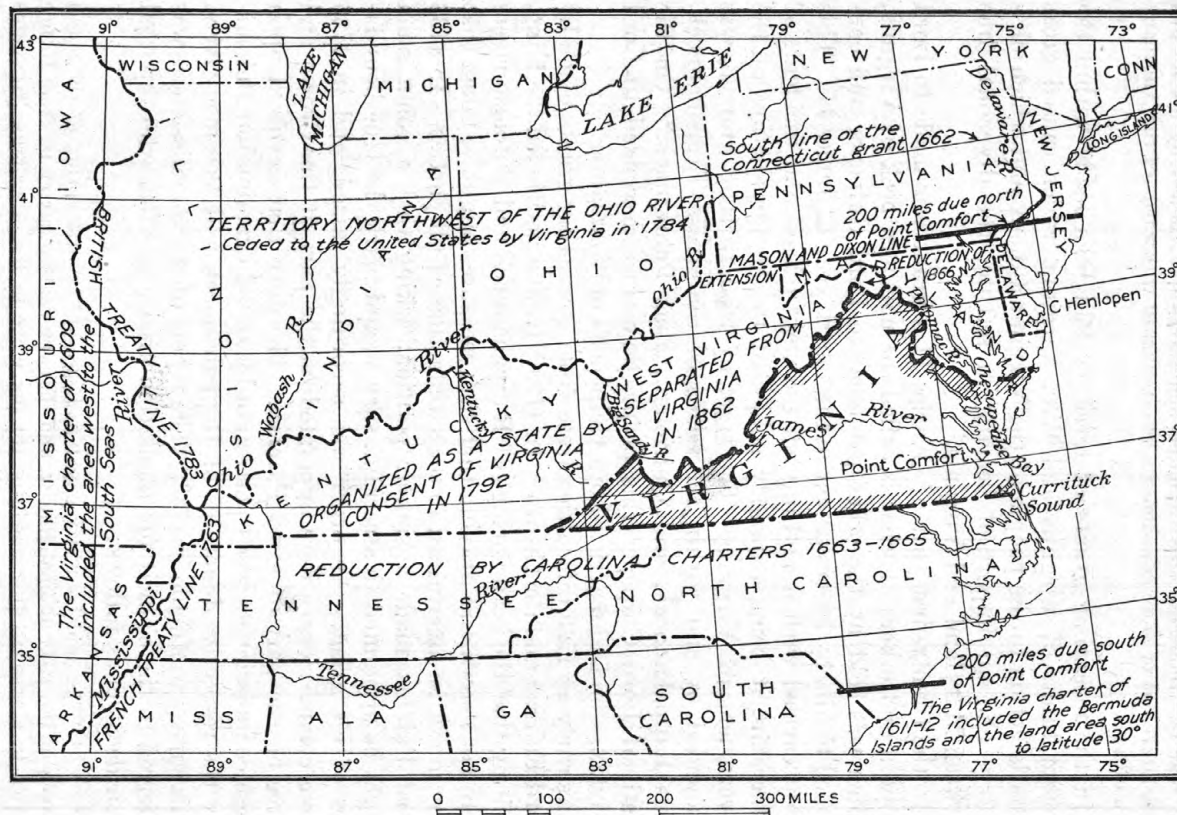


FIGURE 9.—Historical diagram of Virginia.

all improvements, which have been or shall be made thereon. The western and northern extent of Virginia shall, in all other respects, stand as fixed by the charter of King James I, in the year one thousand six hundred and nine, and by the public treaty of peace between the Courts of Britain and France in the year one thousand seven hundred and sixty-three; unless by act of this Legislature one or more governments be established westwards of the Alleghany mountains.

In the meantime grants of territory had been made within the present limits of Virginia and West Virginia, which caused great dissatisfaction to the people of the Virginia Colony and which ultimately had an important bearing in settling the divisional line between Maryland and Virginia.

In the twenty-first year of Charles II a grant was made to Lord Hopton and others of what is called the northern neck of Virginia, which was sold by the other patentees to Lord Culpeper and confirmed to him by letters patent in the fourth year of James II. This grant carried with it nothing but the right of soil and incidents of ownership, it being expressly subjected to the jurisdiction of the government of Virginia. The tract of land thereby granted was "bounded by and within the heads of the rivers Tappahannock, alias Rappahannock, and Quiriough, alias Potowmack." On the death of Lord Culpeper this proprietary tract descended to Lord Fairfax, who had married Lord Culpeper's only daughter.

As early as 1729 difficulties arose from conflicting grants made by Lord Fairfax and the Crown. In 1730 Virginia petitioned the King, reciting that the head springs of Rappahannock and Potomac rivers were not known and praying that such measures might be taken that they might be ascertained to the satisfaction of all parties. In 1733 Lord Fairfax made a similar petition, asking that a commission might be appointed to ascertain, survey, and mark the true boundaries of his grant. An order was accordingly issued, and in 1736 three commissioners were appointed on the part of the Crown and three on the part of Lord Fairfax. The duty that devolved upon these commissioners was to ascertain by actual examination and survey the respective fountains of Rappahannock and Potomac rivers. This survey was made in 1736. The report of the commissioners was referred to the council for plantation affairs in 1738, who reported their decision as follows:

\* \* \* The said boundary ought to begin at the first spring of the south branch of the river Rappahannock, and that the said boundary be from thence drawn in a straight line northwest to the place in the Alleghany Mountains where that part of the Potomac River, which is now called Cohongoroota, first rises. \* \* \*

This report was confirmed by the King, and other commissioners were appointed to run out and mark the dividing line. The line

was run in 1746. On October 17, 1746, the commissioners planted the Fairfax Stone at the spot which had been described and marked by the preceding commissioners as the true head spring of the Potomac and which, notwithstanding much controversy, has continued to be so regarded from that period to the present time. Besides limiting the Fairfax tract, this location was of greater importance as marking the southern point of the western boundary of Maryland.

A description of the original Fairfax Stone, as it appeared in 1859, was given in a report by Lieutenant Michler, as follows:

It consists of a rough piece of sandstone, indifferent and friable, planted to the depth of a few feet in the ground and rising a foot or more above the surface, shapeless in form, it would scarce attract the attention of the passer by. The finding of it was without difficulty, and its recognition and identification by the inscription now almost obliterated by the corroding action of water and air.

When the commissioners for the Maryland-West Virginia boundary visited this locality in 1910 no trace of the original mark was found, although the mark set by Lieutenant Michler was readily identified. A large concrete monument was then built at this point, the computed position of which is latitude  $39^{\circ} 11' 41.9''$ , longitude  $79^{\circ} 29' 15.5''$ .<sup>39</sup> As stated on page 116, these commissioners placed the monument marking the southwest corner of Maryland on the south bank of the North Branch of the Potomac, nearly 4,000 feet north of the Fairfax Stone.

This tract of land was held by Lord Fairfax and his descendants for many years, but subsequent to the Revolution the quitrents and similar charges were abolished, and it became in all respects subject to the jurisdiction of Virginia.

For the history and description of the boundary line between Virginia and Maryland see pages 113-116, and for the line between Virginia and West Virginia see page 128.

Kentucky formed originally a part of the county of Fincastle, Va. In 1776 this county was divided into three counties, the westernmost of which was called Kentucky County, and its eastern boundary was declared to be as follows:<sup>40</sup>

A line beginning on the Ohio, at the mouth of Great Sandy Creek, and running up the same and the main or northeasterly branch thereof to the Great Laurel Ridge or Cumberland Mountains; thence southwesterly along the said mountain to the line of North Carolina.

<sup>39</sup> State of Maryland v. State of West Virginia, Rept. of Commission: Supreme Court Repts., October term, 1911, p. 8. For references concerning Virginia, Maryland, and West Virginia boundaries see State of Maryland v. State of West Virginia: Supreme Court Record, October term, 1908, vol. 2, pp. 1201-1206.

<sup>40</sup> Henning, W. W., Virginia Stat. L., vol. 9, p. 257.



Kentucky having been admitted into the Union June 1, 1792, commissioners were appointed in 1798 by Virginia and Kentucky to fix the boundary. In 1799-1800 the commissioners' report was made and ratified by the States. It was as follows:

To begin at the point where the Carolina, now Tennessee, line crosses the top of the Cumberland Mountains, near Cumberland Gap, thence northeastwardly along the top or highest part of the said Cumberland Mountain, keeping between the headwaters of Cumberland and Kentucky Rivers, on the west side thereof, and the headwaters of Powell's and Guest's rivers, and the Pond Fork of Sandy, on the east side thereof, continuing along the said top, or highest part of said mountain, crossing the road leading over the same at the Little Paint Gap, where by some it is called the Hollow Mountain and where it terminates at the West Fork of Sandy, commonly called Russell's Fork; thence with a line to be run north  $45^{\circ}$  east till it intersects the other great principal branch of Sandy, commonly called the northeastwardly branch, thence down the said northeastwardly branch to its junction with the main west branch and down Main Sandy to its confluence with the Ohio.<sup>41</sup>

It will be seen that the northern part of this line is the present line between West Virginia and Kentucky.

For the history of the settlement of the boundary between Virginia and North Carolina, see North Carolina, pages 130-131.

In 1779 Virginia and North Carolina appointed commissioners to run the boundary line between the two States west of the Allegheny Mountains, on the parallel of  $36^{\circ} 30'$ . The commissioners were unable to agree on the location of the parallel; they therefore ran two parallel lines 2 miles apart, the northern known as Henderson's line and claimed by North Carolina, the southern known as Walker's line and claimed by Virginia. In the year 1789 North Carolina ceded to the United States all territory west of her present boundaries, and as Tennessee was formed from the ceded territory, this question became one between Virginia and Tennessee.

Commissioners appointed by Virginia and Tennessee to establish the boundary adopted a compromise line. Their report was made in 1803 and was as follows:<sup>42</sup>

A due west line equally distant from both Walker's and Henderson's, beginning on the summit of the mountain generally known as White Top mountain, where the northeast corner of Tennessee terminates, to the top of the Cumberland Mountain, where the southwestern corner of Virginia terminates.

This line, which is about a mile north of the Walker line, was marked on trees by five notches arranged in the form of a diamond and is often called the "diamond line." It was adopted by the legislatures of both States in 1803.

In 1871 Virginia passed an act for appointing commissioners to readjust this line. Tennessee the following year passed an emphatic

<sup>41</sup> Shepard, Samuel, *Virginia Stat. L.*, vol. 2, p. 234.

<sup>42</sup> Haywood, John, *The civil and political history of Tennessee*, p. 9, Knoxville, 1823.

resolution refusing to reopen the question regarding a boundary which she considered "fixed and established beyond dispute forever."<sup>43</sup> In 1889 Virginia took the matter to the Supreme Court of the United States, which in 1893 decreed that the line as surveyed and marked in 1803 is the true boundary.<sup>44</sup>

Until 1784 Virginia exercised jurisdiction over a large tract of country northwest of Ohio River, but by a deed executed March 1, 1784, she ceded to the United States all that territory, thus making the northern part of her western boundary the north and northwest bank of the Ohio.

On December 31, 1862, the State of Virginia was divided, and 48 counties, composing the western part of the State, were made the new State of West Virginia. By an act of Congress in 1866 consent was given to the transfer of two additional counties from Virginia to West Virginia.

The Legislatures of Virginia in 1873 and West Virginia in 1877 authorized the appointment of commissions for "ascertaining and locating" the boundary between the two States wherever it was in dispute. Commissions were appointed, and an officer from the Corps of Engineers, United States Army, was detailed to aid in the work. So far as can be learned the survey and marking of this boundary has not been commenced, and its location can be found only by following the old county lines, descriptions of which are given in the Virginia statutes.

References to the statutes by which the counties of Virginia and West Virginia were created can be found in an article on "Virginia counties: Those resulting from Virginia legislation," by Morgan P. Robinson.<sup>45</sup> The majority of the counties were created prior to 1800, and the references are to Henning's Statutes at Large of Virginia, but there have been many changes since that year.

The Grand Assembly of Virginia, in 1660, enacted that

For the prevention of frequent suits and differences \* \* \* all counties \* \* \* shall \* \* \* be limited within certaine naturall bounds \* \* \*, and where naturall bounds are wanting to supply that defect by marked trees, which are to be viewed and renewed every three years by the nearest bordering inhabitants of each county and parrish in Easter week.<sup>46</sup>

#### WEST VIRGINIA.

The separation of West Virginia from Virginia was approved by act of Congress of December 31, 1862,<sup>47</sup> and the new State was admitted to the Union by presidential proclamation dated April 20,

<sup>43</sup> Tennessee H. Jour. for Mar. 23, 1872, p. 71.

<sup>44</sup> See 148 U. S. 528. For historical description and plat of the line consult records of the court for the October term, 1891; for geographic positions on the line see p. 163.

<sup>45</sup> Virginia State Library Bull., vol. 9, January-July, 1916, Nos. 1, 2, and 3.

<sup>46</sup> Henning, W. W., op. cit., vol. 2, p. 18.

<sup>47</sup> 12 Stat. L. 633.

1863, effective June 19, 1863.<sup>48</sup> It is of historical interest that the name proposed for this State by the convention of 1861 was Kanawa.

It originally contained the following counties: Barbour, Boone, Braxton, Brooke, Cabell, Calhoun, Clay, Doddridge, Fayette, Gilmer, Greenbrier, Hampshire, Hancock, Hardy, Harrison, Jackson, Kanawha, Lewis, Logan, McDowell, Marion, Marshall, Mason, Mercer, Monongalia, Monroe, Morgan, Nicholas, Ohio, Pendleton, Pleasants, Pocahontas, Preston, Putnam, Raleigh, Randolph, Ritchie, Roane, Taylor, Tucker, Tyler, Upshur, Wayne, Webster, Wetzel, Wirt, Wood, Wyoming.

In 1866, with the consent of Congress,<sup>49</sup> West Virginia was enlarged by the two counties of Berkeley and Jefferson, transferred from Virginia.

The boundary between West Virginia and Virginia is made up of boundary lines of the counties above enumerated that border on Virginia and can be defined only by reference to the laws by which these counties were created.<sup>11</sup>

In the constitution of 1872, after a recapitulation of the counties that were transferred from Virginia to West Virginia, is found the following clause defining the boundaries upon the south and west:<sup>50</sup>

The State of West Virginia includes the bed, bank, and shores of the Ohio River and so much of the Big Sandy River as was formerly included in the Commonwealth of Virginia; and all territorial rights and property in, and jurisdiction over the same, heretofore reserved by and vested in the Commonwealth of Virginia, are vested in and shall hereafter be exercised by the State of West Virginia. And such parts of the said beds, banks, and shores as lie opposite and adjoining the several counties of this State, shall form parts of said several counties, respectively.

For a history of the boundaries of West Virginia, see Pennsylvania, pages 108-109; Maryland, pages 113 and 116; and Virginia, page 127.

#### NORTH CAROLINA.

In the year 1663 the "first charter" of Carolina was granted, which in 1665 was followed by the "second charter" of Carolina.

The following extracts from these two charters define the boundaries:

#### CHARTER OF 1663.<sup>51</sup>

all that territory or tract of ground scituate, lying and being within our dominions of America, extending from the north end of the island called Lucke island, which lieth in the southern Virginia seas, and within six and thirty degrees of the northern latitude, and to the west as far as the south seas, and

<sup>48</sup> 13 Stat. L. 731.

<sup>49</sup> 14 Stat. L. 350. See 11 Wallace, 39 (78 U. S. 39-65), for a historical sketch of this addition and court decisions relating thereto.

<sup>51</sup> Henning, W. W., Virginia Stat. L. from 1619 to 1792, vol. 2, p. 184.

<sup>50</sup> Thorpe, F. N., op. cit., vol. 7, p. 4034.

<sup>51</sup> Idem, vol. 5, p. 2744.

so southerly as far as the river St. Matthias, which bordereth upon the coast of Florida, and within one and thirty degrees of northern latitude, and so west in a direct line as far as the south seas aforesaid.

CHARTER OF 1665.<sup>52</sup>

\* \* \* All that province, territory, or tract of land, scituate, lying or being within our dominions of America aforesaid; extending north and eastward, as far as the north end of Currituck river, or inlet, upon a strait westerly line to Wyonoak creek, which lies within or about the degrees of thirty-six and thirty minutes, northern latitude; and so west in a direct line as far as the South Seas. \* \* \* and south and westward, as far as the degrees of twenty-nine, inclusive, of northern latitude; and so west, in a direct line, as far as the South-Seas; \* \* \*

This is an extension of the territory granted by the charter of 1663, by which its northern boundary was removed from the approximate latitude of 36° to that of 36° 30', approximately its present location, and its southern boundary was extended to latitude 29°.

Because of the great distance between the settlements in the northern and southern parts of the Province there had been for many years a governor for each part. This condition finally resulted in the creation of separate Provinces. The exact year of the division into the two Provinces of North and South Carolina is somewhat uncertain, but it is generally put down as 1729.

The division line appears to have been established by mutual agreement. In the constitution of North Carolina, adopted in 1776, this line is defined as stated in the subjoined extract:<sup>53</sup>

beginning on the sea side at a cedar stake, at or near the mouth of Little River (being the southern extremity of Brunswick county,) and running from thence a northwest course, through the boundary house, which stands in thirty-three degrees fifty-six minutes, to thirty-five degree north latitude, and from thence a west course so far as is mentioned in the charter of King Charles the Second to the late Proprietors of Carolina. Therefore, all the territories, seas, waters, and harbours, with their appurtenances, lying between the line above described, and the southern line of the State of Virginia, which begins on the sea shore, in thirty-six degrees thirty minutes north latitude, and from thence runs west, agreeable to the said Charter of King Charles, are the right and property of the people of this State, to be held by them in sovereignty; any partial line, without the consent of the Legislature of this State, at any time thereafter directed or laid out in anywise notwithstanding.

\* \* \* *And provided also*, That it shall not be construed so as to prevent the establishment of one or more governments westward of this State, by consent of the Legislature: \* \* \*

On December 2, 1789, the Legislature of North Carolina passed an act ceding to the United States the western lands now constituting the State of Tennessee (see fig. 9). On February 25, 1790, the deed was offered, and on April 2, 1790, it was accepted by the United States.

<sup>52</sup> Thorpe, F. N., op. cit., vol. 5, p. 2762.

<sup>53</sup> Idem, p. 2789.



In the Revised Statutes the north and south boundaries of the State are described as follows: The northern boundary, the parallel of  $36^{\circ} 30'$ ; the southern boundary, a line running northwest from Goat Island on the coast in latitude  $33^{\circ} 56'$  to the parallel of  $35^{\circ}$ , and thence along that parallel to Tennessee; and the western boundary is the Smoky Mountains. It is strange that the Revised Statutes should contain a statement of the boundary lines that is so well known to be incorrect, especially as regards the southern boundary. The intention had been from the earliest colonial times to establish the northern boundary upon the parallel of  $36^{\circ} 30'$ . This is the wording of every legislative act relating to it, and the errors of this boundary are due simply to errors in surveying.

The following description of the boundary lines of this State and of the various attempts made to locate them is taken from the report of the Geological Survey of North Carolina:<sup>54</sup>

The first and only serious attempt to ascertain the northern boundary was that made in 1728 by Col. Wm. Byrd and others, commissioners on the part of the two colonies, acting under royal authority. From the account given by Byrd of this undertaking, it appears that they started from a point on the coast whose position they determined by observation to be in  $36^{\circ} 31'$ , north latitude, and ran due west (correcting for the variation of the compass), to Nottoway river, where they made an offset<sup>55</sup> of a half mile to the mouth of that stream, again running west. The line was run and marked 242 miles from the coast, to a point in Stokes county, on the upper waters of the Dan river, (on Peter's Creek), the North Carolina commissioners accompanying the party only about two-thirds of the distance. Beyond this point, the line was carried some 90 miles by another joint commission of the two colonies in 1749; this survey, terminating at Steep Rock creek, on the east of Stone mountain, and near the present northwest corner of the State, estimated to be 329 miles from the coast. In 1779 the line was taken up again at a point on Steep Rock creek, determined by observation to be on the parallel of  $36^{\circ} 30'$  (the marks of the previous survey having disappeared entirely), and carried west to, and beyond Bristol, Tennessee. This last is known as the Walker line [see p. 126], from one of the commissioners of Virginia.

These lines were run and the latitude observations taken with very imperfect instruments, and the variation of the compass was little understood, so that it was not possible to trace a parallel of latitude. The line, besides, was only marked on the trees and soon disappeared, and as the settlements were very scattered, the location soon became a matter of vague tradition and presently of contention and litigation, so that in 1858, at the instance of Virginia, commissioners were appointed to relocate the line from the end of the Byrd survey westward; but for some reason they did not act. In 1870 commissioners were again appointed by Virginia and similar action asked on the part of this State; and the proposition was renewed in 1871, but ineffectually as before. In all these numerous attempts to establish the line of division between the two colonies and States, the intention and the specific instructions have been to ascertain and mark, as the boundary of the two States, *the parallel of  $36^{\circ} 30'$* .

<sup>54</sup> Vol. 1, pp. 2-4, Raleigh, 1875.

<sup>55</sup> This break in the line is in accordance with an agreement made in 1727 between the governors of the two colonies. Its measured length is 2,977 feet.

The maps published toward the end of last century by Jefferson and others give that parallel as the line, and the Bill of Rights of North Carolina claims that "all the territory lying between the line above described (the line between North and South Carolina) and the southern line of the State of Virginia, which begins on the seashore in  $36^{\circ} 30'$  north latitude, and from thence runs west, agreeably to the charter of King Charles, are the right and property of this State." But it appears from the operations of the United States Coast Survey at both ends of the line, that the point of beginning on Currituck Inlet, instead being, as so constantly assumed, in latitude  $36^{\circ} 30'$ , or as determined by the surveyors in 1728,  $36^{\circ} 31'$  is  $36^{\circ} 33' 15''$ , and the western end (of "the Walker line," of 1779, at Bristol, Tenn.),  $36^{\circ} 34' 25.5''$ . [See p. 163 for later data.] It is stated in Byrd's Journal that the variation of the compass was ascertained to be a little less than  $3^{\circ}$  W. (The magnetic chart of the United States Coast Survey would make it E.) And no account is given of any subsequent correction, and if none was made at the end of the line surveyed by him the course would have been in error by nearly  $3^{\circ}$ , as the amount of variation in this State changes a little more than  $1^{\circ}$  for every one hundred miles of easting and westing. So that the northern boundary of the State as run is not only not the parallel of  $36^{\circ} 30'$  but is far from coincident with any parallel of latitude, and must be a succession of curves, with their concavities northward and connected, at their ends by north and south offsets.

The southern boundary between this State and South Carolina and Georgia was first established by a joint colonial commission in 1735 to 1746. The commissioners run a line from Goat Island on the coast (in latitude  $33^{\circ} 56'$ , as supposed), N.W. to the parallel of  $35^{\circ}$ , according to their observations, and then due west to within a few miles of the Catawba river, and here, at the old Salisbury and Charleston road, turned north along that road to the southeast corner of the Catawba Indian lands. This line, resurveyed in 1764, was afterwards (in 1772) continued along the eastern and northern boundaries of the Catawba lands to the point where the latter intersects the Catawba river; thence along and up that river to the mouth of the South Fork of the Catawba, and thence due west, as supposed, to a point near the Blue Ridge. This part of the line was resurveyed and confirmed by commissioners under acts of Assembly of 1803, 4, 6, 13, 14, and 15, and continued west to and along the Saluda mountains and the Blue Ridge to the intersection of the "Cherokee boundary" of 1797, and thence in a direct line to the Chatooga river at its intersection with the parallel of  $35^{\circ}$ . From this point the line was run west to the Tennessee line, between this State and Georgia, in 1807, and confirmed and established by act of 1819.

The boundary between this State and Tennessee was run, according to the course designated in the act of 1789, entitled "An act for the purpose of ceding to the United States certain western lands therein described" (the State of Tennessee); that is, along the crest of the Smoky mountains, from the Virginia line to the Cataluche river (in Haywood County), in 1799, under act of 1796. It was continued from this point to the Georgia line in 1821. The commissioners who completed this line, at the date last-mentioned, instead of following their instructions, diverged from the crest of the Smoky (Unaka) mountains at the intersection of the Hiwassee turnpike, and run *due South*<sup>56</sup> to the Georgia line, thereby losing for the State the valuable mining region since known as Ducktown.

And as to the Southern boundary, the point of beginning on Goat Island is in latitude  $33^{\circ} 51' 37''$ , as shown by the Coast Survey, and instead of running from Goat Island Northwest to latitude of  $35^{\circ}$  and thence along that parallel,

<sup>56</sup> Probably run on compass meridian; the line as marked actually runs about  $6^{\circ}$  west of true south.

it appears, from the South Carolina geographical State survey of 1821-25, that the course from the starting point is N. 47° 30' W., and instead of pursuing the parallel of 35, it turns west about 10 miles south of that line, and then on approaching the Catawba river, turns northward pursuing a zigzag line to the forks of the Catawba river, which is about 12 miles north of that parallel; and from this point to the mountains the boundary line (of 1772) runs, not west, but N. 88° W., bringing its western end about 17 miles too far north, and reaching the (supposed) parallel of 35° at a distance of about 130 miles west of the Catawba River. The loss of territory to the State resulting from these singular deviations is probably between 500 and 1,000 square miles.

The United States Geological Survey has determined approximate positions for points on the North Carolina-Virginia line as follows:

Longitude 77° 31' 50'',	latitude 36° 32' 42.6''.
79° 24' 00'',	36° 32' 29.6''.
79° 29' 19'',	36° 32' 21.9''.

The following extract from the Tennessee constitution of 1796 defines the eastern boundary of that State, which is the western boundary of North Carolina, as it was intended to be run and marked: <sup>57</sup>

Beginning on the extreme height of the Stone Mountain at the place where the line of Virginia intersects it, in latitude thirty-six degrees and thirty minutes north; running thence along the extreme height of the said mountain to the place where Watauga River breaks through it; thence a direct course to the top of the Yellow Mountain, where Bright's road crosses the same; thence along the ridge of said mountain, between the waters of Doe River and the waters of Rock Creek, to the place where the road crosses the Iron Mountain; from thence along the extreme height of said mountain to where Nolichucky River runs through the same; thence to the top of the Bald Mountain; thence along the extreme height of said mountain to the Painted Rock, on French Broad River; thence along the highest ridge of said mountain to the place where it is called the Great Iron or Smoky Mountain; thence along the extreme height of said mountain to the place where it is called Unicoi or Unaka Mountain between the Indian towns of Cowee and Old Chota; thence along the main ridge of the said mountain to the southern boundary of this State, as described in the act of cession of North Carolina to the United States of America. \* \* \*

Commissioners appointed by authority of the Legislature of North Carolina surveyed and marked a part of the Tennessee line in 1799. Beginning at the Virginia line they ran southwestward along the crest of the mountain to the highest pinnacle of the Smoky Mountains beyond French Broad River, where they stopped. Neither Tennessee nor the United States was represented in this survey. A certified copy of the field notes was given to Tennessee in 1803, but it does not appear that the line as run was ratified by either State. North Carolina had, however, agreed to be bound by the action of its commissioners.

In 1819 North Carolina authorized the extension of the line of 1799, and in 1820 Tennessee took like action. The line was completed to the Georgia State line, and the extension was formally ratified

<sup>57</sup> Thorpe, F. N., op. cit., vol. 6, p. 3424.

by both States in 1821. The original map for the 1821 survey of the North Carolina-Tennessee line is said to be in the State archives in Nashville.

In 1885 commissioners were appointed to rerun the part of the line of 1799 from Iron Mountain at Indian Grove Gap to the point where the Jonesboro and Asheville road passes over Bald Mountain. The line was run in 1886, but the commissioners failed to agree on a part of the line about 6 miles long near Nolichucky River. The North Carolina commissioner followed as closely as possible the survey of 1799, but the Tennessee commissioners insisted on a line about a mile farther east. The report of the North Carolina commissioner is given in full in Document 22 of the North Carolina Legislature, session of 1887.

No further action appears to have been taken by either State toward a settlement of this dispute, but in 1915 a suit involving the proper location of the boundary was decided in the Tennessee Supreme Court in favor of the line as marked by the North Carolina commissioner.<sup>58</sup>

The commissioners who surveyed the southern part of the west boundary of North Carolina in 1821 depended almost entirely on blazes on trees for their marks, and, although they did not run out the line as described by statute, the entire line as marked was accepted by the legislatures of the two States.

In recent years many disputes regarding the exact location of parts of the line have arisen, and they were finally taken to the Supreme Court of the United States. Commissioners appointed to re-mark the boundary filed their report October 29, 1915, having re-marked the line from the point where it first intersects Little Tennessee River down the north side of the river about half a mile, thence across the river and up Slick Rock Creek to a point near the mouth of Big Stack Gap Branch, thence up a ridge leading to Big Fodderstack Mountain, thence along the main ridge to a place locally known as "County Corners," thence along State Ridge to Tellico River, thence in a southwesterly course to the top of Jenks Knob. South of this point sufficient marks of the survey of 1821 are known to fix the line as above described.<sup>59</sup>

The approximate position for the southwest corner of North Carolina and the southeast corner of Tennessee at a point on the Georgia line is latitude  $34^{\circ} 59' 17''$ , longitude  $84^{\circ} 19' 19''$ .

In 1879 the legislature passed an act to appoint commissioners to make a survey from the northeast corner of Georgia westward. This

<sup>58</sup> See Thompson, F. M., Reports of cases in the Supreme Court of Tennessee, vol. 7, pp. 35-66, 1916 (Tennessee Repts., No. 134), for an account of this survey.

<sup>59</sup> See 235 U. S. 3-17 for the decision of the court, which includes a historical description of the line and extracts from the field notes of the 1821 survey; and 240 U. S. 652 for report of commissioners.



point of commencement is common to North Carolina, South Carolina, and Georgia.

In 1881 the legislature passed another act providing for the appointment of a commissioner, who should act with commissioners from Virginia, South Carolina, Georgia, or Tennessee, to rerun and re-mark the boundaries between North Carolina and the other States.

In 1888 a joint commission reran the Byrd line of 1728 between the ocean at Currituck Inlet and Nottoway River, a distance of 59½ miles;<sup>60</sup> 28 appropriately marked granite monuments were established, and astronomic determinations of latitude were made for five of them as follows (the longitudes are approximate):

Monument No. 2, Knott's Island, latitude 36° 32' 59'', longitude 75° 55.7'.

Monument No. 7, Northwest River, latitude 36° 33' 00'', longitude 76° 11.6'.

Monument No. 11, Dismal Swamp Canal, latitude 36° 33' 02'', longitude 76° 22.7'.

Monument No. 13, latitude 36° 33' 01'', longitude 76° 33.5'.

Monument No. 28, Nottoway River, latitude 36° 32' 36'', longitude 76° 56'.

#### SOUTH CAROLINA.

The territory within the present State of South Carolina was included in the charter of Carolina, which also embraced what is now the State of Georgia. (See North Carolina, pp. 128-129.)

The settlement of Carolina under the charter of 1665 had been carried on from two points, and

While there had been no formal division of the domain into distinct territories, these settlements at the two points had at first distinct governments; and the northern portion had gradually acquired the informal designation of North Carolina; the southern that of South Carolina.<sup>61</sup>

In 1719 there was a concerted revolt by the southern settlements against the proprietary government of Carolina, but not until 1729 was the separation of the two colonies formally recognized by the Parliament of Great Britain.

For a history of the settlement of the boundary between North Carolina and South Carolina, see North Carolina, pages 129, 131-132.

By the charter of Georgia the line between South Carolina and Georgia was to be Savannah River, to the head thereof. In 1762 difficulties having arisen concerning the interpretation of the charter, regarding the head of the Savannah, and the title to the lands south of Altamaha River claimed by South Carolina, Georgia made com-

<sup>60</sup> See North Carolina Pub. Doc. 31, sess. of 1889, for a full report.

<sup>61</sup> McCrady, Edward, *The history of South Carolina under the Royal Government, 1719-1776*, p. 3, New York, 1899.

plaint to the King, who issued a proclamation in 1763 giving the lands between Altamaha and St. Marys rivers to Georgia. The question of the boundary on the Savannah, however, remained unsettled until 1787, when a convention between the two States was held at Beaufort, S. C., to determine it, and the line was fixed as at present. (See fig. 10.)

The following is an extract from the articles of agreement:<sup>62</sup>

The most northern branch or stream of the river Savannah from the sea or mouth of such stream to the fork or confluence of the rivers now called Tugaloo and Keowa, and from thence the most northern branch or stream of the said river Tugaloo till it intersects the northern boundary line of South Carolina, if the said branch or stream of Tugaloo extends so far north, reserving all the islands in the said rivers Savannah and Tugaloo to Georgia; but if the head spring or source of any branch or stream of the said river Tugaloo does not extend to the north boundary line of South Carolina, then a west line to the Mississippi, to be drawn from the head spring or source of the said branch or stream of Tugaloo River which extends to the highest northern latitude, shall forever hereafter form the separation, limit, and boundary between the States of South Carolina and Georgia.

In the same year South Carolina ceded to the United States a strip of territory which she claimed, about 12 or 14 miles wide, south of the North Carolina line and extending to the Mississippi. South Carolina's claim to this narrow strip below the thirty-fifth parallel was based on inadequate geographic information. It was no doubt believed that the source of the "most northern branch or stream of the said river Tugaloo" was some distance south of the North Carolina line, but recent surveys show that the headwaters of the Chattooga, which is a branch of the Tugaloo, are north of the thirty-fifth parallel and within the limits of North Carolina.<sup>63</sup> The agreement between South Carolina and Georgia in 1787 fixed a portion of the boundary across a strip of land to which Georgia then had no claim. Fortunately, later disputes regarding this territory were made impossible by its cession to the United States and the cession of the eastern part to Georgia. W. R. Garrett, in a paper read before the South Carolina Historical Society, November 8, 1881,<sup>64</sup> stated that "The lines described did, therefore, include something and did convey a real title." With this conclusion the present writer does not agree.

In 1917 the Legislature of Georgia authorized the bringing of suit in the Supreme Court of the United States in order to settle a long-standing dispute between that State and the State of South Caro-

<sup>62</sup> 1 Stat. L. 466.

<sup>63</sup> See the U. S. Geological Survey map of the Cowee quadrangle, S. C.

<sup>64</sup> History of South Carolina cession, p. 11. See also Battle, C. E., *The Georgia-Tennessee boundary dispute*: Georgia Bar Assoc. Rept. Nineteenth ann. sess., p. 101, Atlanta, 1902. See also 13 Howard 405-406 (19 U. S. 551).

lina regarding their common boundary. The court decision, rendered January 30, 1922, is in part as follows:

(1) Where there are no islands in the boundary rivers the location of the line between the two States is on the water midway between the main banks of the river when the water is at ordinary stage; (2) where there are islands the line is midway between the Island bank and the South Carolina shore when the water is at ordinary stage; and (3) that islands in the Chattooga River are reserved to Georgia as completely as are those in the Savannah or Tugaloo rivers.

#### GEORGIA.

Georgia was included in the proprietary charter granted to the lords proprietors of Carolina in 1662 and 1663, for which a provincial charter was substituted in 1719.

In 1732 the charter of Georgia as an independent colony was granted by King George II. The following is an extract:<sup>65</sup>

all those lands, countrys, and territories, situate, lying and being in that part of South-Carolina, in America, which lies from the most northern part of a stream or river there, commonly called the Savannah, all along the sea coast to the southward, unto the most southern stream of a certain other great water or river called the Alatamaha, and westerly from the heads of the said rivers, respectively, in direct lines to the south seas, \* \* \* with the islands of the sea, lying opposite to the eastern coast of the said lands, within twenty leagues of the same. \* \* \*

This charter was surrendered in 1752, and a provincial government was established.

In 1763 the territory between Altamaha and St. Marys rivers was added to Georgia by royal proclamation. (See South Carolina, pp. 134-135.)

In the constitution adopted by Georgia in 1798 the boundaries are thus described (see fig. 10):<sup>66</sup>

The limits, boundaries, jurisdictions, and authority of the State of Georgia do, and did, and of right ought to extend from the sea or mouth of the river Savannah, along the northern branch or stream thereof, to the fork or confluence of the rivers now called Tugalo and Keowee, and from thence along the most northern branch or stream of the said river Tugalo, till it intersect the northern boundary line of South Carolina, if the said branch or stream of Tugalo extends so far north, reserving all the islands in the said rivers Savannah and Tugalo to Georgia; but if the head, spring, or source of any branch or stream of the said river Tugalo does not extend to the north boundary line of South Carolina, then a west line to the Mississippi, to be drawn from the head, spring, or source of the said branch or stream of Tugalo River, which extends to the highest northern latitude; thence down the middle of the said river Mississippi until it shall intersect the northernmost part of the thirty-first degree of north latitude, south by a line drawn due east from the termination of the line last mentioned, in the latitude of thirty-one degrees north of the equator, to the middle of the river Apalachicola or Chatahoochee; thence along

<sup>65</sup> Thorpe, F. N., op. cit., vol. 2, p. 771.

<sup>66</sup> Idem, vol. 2, p. 794.

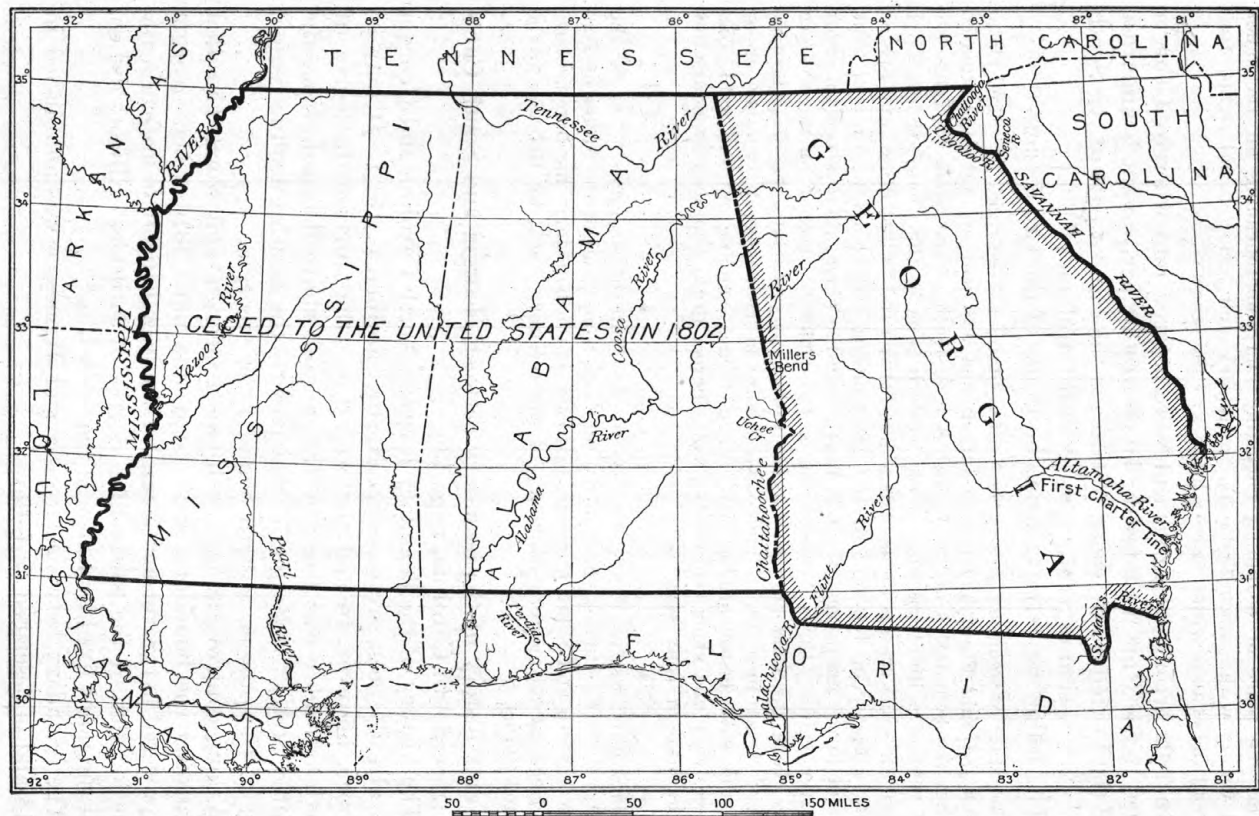


FIGURE 10.—Historical diagram of Georgia.



the middle thereof, to its junction with Flint River; thence straight to the head of Saint Mary's River, and thence, along the middle of Saint Mary's River, to the Atlantic Ocean, and from thence to the mouth or inlet of Savannah River, the place of beginning, including and comprehending all the lands and waters within the said limits, boundaries, and jurisdictional rights; and also all the islands within twenty leagues of the seacoast.

In 1802 articles of agreement were entered into whereby Georgia ceded to the United States the lands west of her present boundaries, and the United States ceded to Georgia the eastern part of the South Carolina cession of 1787. (See South Carolina, p. 135.)

The following extracts show the limits of the two cessions:<sup>66a</sup>

The State of Georgia cedes to the United States all the right, title, and claim which the said State has to the jurisdiction and soil of the lands situated within the boundaries of the United States, south of the State of Tennessee and west of a line beginning on the western bank of the Chatahouchie River where the same crosses the boundary line between the United States and Spain; running thence up the said River Chatahouchie, and along the western bank thereof to the great bend thereof, next above the place where a certain creek or river, called "Uchee" (being the first considerable stream on the western side, above the Cussetas and Coweta towns), empties into the Chatahouchie River; thence in a direct line to Nickajack, on Tennessee River; then crossing the said last-mentioned river, and thence running up the said Tennessee River and along the western bank thereof to the southern boundary line of the State of Tennessee.

\*            \*            \*            \*            \*            \*            \*

The United States \* \* \* cede to the State of Georgia \* \* \* the lands \* \* \* situated south of the southern boundaries of the States of Tennessee, North and South Carolina, and east of the boundary line herein above described as the eastern boundary of the territory ceded by Georgia to the United States.

For a history of the boundary between Georgia and South Carolina, see South Carolina, page 135.

The history of the boundary between North Carolina and Georgia has already been given. (See North Carolina, p. 131.) It may be proper, however, to add that this line (the thirty-fifth degree of north latitude) was fixed by the cession, above detailed, from the United States to Georgia of that part of the South Carolina cession east of the present western boundary of Georgia.

A long controversy ensued between Georgia and North Carolina regarding the boundary, with no results until 1810, when Georgia empowered her governor to employ Andrew Ellicott to ascertain the true location of the thirty-fifth degree of latitude. Ellicott did so, and the point fixed by him was acquiesced in.<sup>66b</sup>

The boundary between Georgia and Tennessee was established in 1818 and is described as follows:<sup>67</sup>

<sup>66a</sup> Georgia act of April 24, 1802.

<sup>66b</sup> See Cobb, Digest of State laws of Georgia to 1851, p. 150.

<sup>67</sup> Tennessee Laws, 1817-1820, vol. 2, p. 475; Georgia acts, 1810-1819, p. 1217; see also Haywood, John, op. cit., p. 13; The description given by Haywood differs slightly in wording from the others, but the essential features are the same. A copy of the map of the survey is on file in the office of the Secretary of State for Georgia.

Beginning at a point in the true parallel of the thirty-fifth degree of north latitude, as found by James Camak, mathematician on the part of the State of Georgia, and James S. Gaines, mathematician on the part of the State of Tennessee, on a rock about two feet high, four inches thick, and fifteen inches broad, engraved on the north side thus: "June 1st, 1818; var.  $6\frac{1}{2}$  east," and on the south side thus: "Geo. lat. 35 north; J. Camak," which rock stands one mile and twenty-eight poles from the south bank of the Tennessee river, due south from near the center of the old Indian town of Nickajack, and near the top of the Nickajack Mountain, at the supposed corner of the states of Georgia and Alabama; thence running due east, leaving old D. Ross two miles and eighteen yards in the State of Tennessee, and leaving the house of John Ross about two hundred yards in the State of Georgia, and the house of David McNair one mile and one-fourth of a mile in the State of Tennessee, with blazed and mile-marked trees, lessening the variation of the compass by degrees, closing it at the termination of the line on the top of the Unicoi Mountain at five and one-half degrees.

Another line for the boundary between Georgia and Tennessee, based on new observations for latitude, was run in 1826 by James Camak, along a parallel about 37.9 chains north of the line run by him in 1818, but apparently it was not accepted by either State as the true line. Attempts have been made by Georgia to have the line relocated, but the line as run in 1818 still stands as the accepted boundary, although in places it is a mile south of the thirty-fifth parallel.

The present boundary between South Carolina and Georgia is thus described:<sup>68</sup>

Beginning at the mouth of the Savannah River; along the river to the junction of the Kiowee, and along the Tugaloo to the junction of the Tallulah and Chattooga; thence along the Chattooga to a point on the 35th parallel of north latitude, at the union of the northern boundary of South Carolina and the southern boundary of North Carolina. The general course is about north  $35^{\circ}$  west, and the length, in a direct line, about 247 miles. It terminates at Ellicott's Rock, on the Chattooga River, marked "Lat.  $35^{\circ}$ , A. D. 1813, N. C., S. C."

This line, in conformity with the treaty of Beaufort, separates Georgia from South Carolina (all the islands of the rivers Savannah, Tugaloo, and Chattooga being reserved to Georgia).

The boundary between Georgia and Florida was fixed by the treaty of 1783, between the United States and Great Britain, substantially as at present, viz:

Commencing in the middle of the Apalachicola or Catahouche River, on the thirty-first degree of north latitude; thence along the middle thereof to its junction with the Flint River; thence straight to the head of Saint Marys River, and thence down the middle of that river to the Atlantic Ocean.

<sup>68</sup> Janes, T. P., Commissioner of Agriculture, Handbook of the State of Georgia, p. 120, Atlanta, 1876.

This boundary was affirmed by the treaty of 1795 between the United States and Spain.

In 1799 Andrew Ellicott, as commissioner for the United States, was directed to survey and mark this line from the Mississippi to the Atlantic Ocean. From a point near the Mississippi, determined by him as on the thirty-first parallel, he ran a line due east to a point near the mouth of Flint River, the latitude of which he determined as  $30^{\circ} 42' 42.8''$ , where he was forced to stop work because of hostile Indians. He then proceeded by water to St. Marys River and up that river to what he took to be the source of its longest branch, where he erected a large mound, the latitude of which he reported as "about  $30^{\circ} 34' N$ ."

The line joining these two marks had not yet been surveyed when Spain ceded the Floridas to the United States in 1819, and the uncertainty regarding the position of this boundary was the cause of many disputes, which became more acute as the country became more thickly settled. Georgia claimed that the headwaters of the St. Marys were at the source of a southern branch. This claim if conceded would give additional territory to that State variously estimated at 800 to 2,355 square miles. On the other hand, the United States commissioners maintained that the real source of the St. Marys was 2 miles north of the Ellicott mound.

Apparently Georgia, at least temporarily, accepted the Ellicott mound as the proper eastern terminus of the straight boundary, and some time before 1825 had the "Watson line" run between the two marks established by Ellicott. It is uncertain when this line was run and whether it was ordered run by Georgia, although it is referred to in official documents as having been run by that State.

In 1825 a second line was run by D. F. McNeil, a contract surveyor for the United States General Land Office, and this line, although not formally accepted by the General Land Office, was looked upon for more than 20 years as the proper location of the boundary.

In 1826 Congress authorized the survey and marking of a line which

shall be run straight from the junction of said rivers Chatahoochie and Flint to the point designated as the head of Saint Marys River.

Georgia, not content with either the Watson or the McNeil line, continued to press her claims and in 1827 passed an act forbidding any surveys of public land in the disputed territory (south of the Ellicott mound line) without authority of law.

In 1846 both Georgia and Florida consented to the appointment of commissioners who should fix the boundary, and this action resulted in 1859 in the running of the "Orr and Whitner line" between the

mouth of Flint River and the Ellicott mound on the St. Marys. The line as then marked was accepted by Florida in 1861 and by Georgia in 1866.

All three of the lines described are indicated on township plats of the General Land Office in Florida book No. 43.<sup>69</sup>

The southern boundary of Georgia is thus described:<sup>70</sup>

Thence down the western bank of the river [Chattahoochee] at high water mark to its junction with Flint River, at a point now four chains below the actual junction—latitude  $30^{\circ} 42' 42''$ ; longitude  $80^{\circ} 53' 15''$ . The average direction of this line is about south  $6^{\circ}$  east, and distance about 150 miles direct. About 130 miles, it separates Georgia from Alabama, and the remaining 20 miles from Florida.

Thence along Orr and Whitner's line, south  $87^{\circ} 17' 22''$  east (average direction), 158-28/80 miles, to a point 37 links north of Ellicott's Mound, on St. Mary's River. This line is marked by a succession of mounds about 10 feet at the base and 5 feet high—a very permanent form of landmark—and separates Georgia from Florida. It continues approximately and on an average as follows:

From Ellicott's Mound, south  $10^{\circ}$  east, about 10 miles; thence east 8 miles; thence north 24 miles; thence east 33 miles, following the St. Mary's River in its tortuous windings to the Atlantic Ocean.

In 1872 Congress passed an act to confirm the titles to land "between the line run by Georgia, known as the Watson line, and the Orr and Whitner line, lately established as the true boundary between the said States."

The line between Georgia and Alabama was fixed by the act of cession from Georgia to the United States in 1802.

In 1822-1825 Georgia, desiring to have the line run from the Chattahoochee to the point where it strikes the Tennessee line, appointed commissioners for that purpose and requested the cooperation of Alabama and the United States; the latter, however, took no action.

It had been ascertained by actual survey in running the random line that the first great bend in the river next above the mouth of the Uchee, from which a right line would run to Nickajack without touching the river, was the Big Shoal or Millers Bend, and this the commissioners on the part of Georgia contended was the bend at which the line should begin.<sup>71</sup>

In this contention the commissioners from Alabama refused to concur; consequently the line was run from Nickajack to Millers Bend by the Georgia commissioners alone. Alabama protested against this line and made repeated efforts to reopen negotiations concerning it, to all of which Georgia steadily refused to accede,

<sup>69</sup> For copies of official documents, Federal and State, relating to this boundary, of dates from 1789 to 1846, see 33d Cong., 2d sess., S. Misc. Doc. 25, 1855, a book of more than 400 pages.

<sup>70</sup> *Janes, T. P.*, op. cit., p. 121; *Georgia Code*, 1873, p. 7; and *Florida Code*, 1872.

<sup>71</sup> *Laws of Georgia*, 1826, p. 209.



until finally, January 24, 1840, the Legislature of Alabama passed the following joint resolution:

*Resolved*, That the State of Alabama will and do hereby, accept as the true dividing line between this State and that of Georgia, the line which was run and marked out by the commissioners of Georgia in 1826, beginning at what is called Millers Bend, on the Chattahoochee River; thence along said marked line to Nickajack.

The line is given in the Code of Alabama in the following words:<sup>72</sup>

The boundary line between Alabama and Georgia commences on the west side of the Chattahoochee River at the point where it enters the State of Florida; from thence up the river, along the western branch thereof, to the point on Millers Bend next above the place where the Uchee Creek empties into such river; thence in a direct line to Nickajack.

The description of the western boundary of Georgia follows:<sup>73</sup>

From Nickajack the line between Georgia and Alabama runs south  $9^{\circ} 30'$  east to Millers Bend, on the Chattahoochee River, about 146 miles. Thence down the western bank of the river at high-water mark to its junction with Flint River, at a point now four chains below the actual junction, latitude  $30^{\circ} 42' 42''$ , longitude  $80^{\circ} 53' 15''$ . The average direction of this line is about south  $6^{\circ}$  east, and distance about 150 miles direct.

The United States Supreme Court<sup>74</sup> decreed regarding the river boundary between Georgia and Alabama that

the water line impressed upon the bank above the slope is the line \* \* \* Both bank and bed are to be ascertained by inspection, and the line is where the action of the water has permanently marked itself upon the soil. \* \* \*

We must reject, altogether, the attempt to trace the line by either ordinary low water or high water. These terms are only predicable of those parts of rivers within the ebb and flow of the tides, \* \* \* The permanent fast-land bank is referred to as governing the line. And where the bank is fairly marked by the water, that water level will show at all places where the line is.

#### FLORIDA.

Florida was originally settled by the Spaniards and was held as a Spanish Province for nearly 200 years. In 1763 it was ceded by Spain to Great Britain, which divided it into two Provinces of East Florida and West Florida, separated by Apalachicola River. East Florida had for its northern boundary the north boundary of the present State (fig. 10), and West Florida at first had a northern boundary on the thirty-first parallel, but in 1764 the Province was extended northward to the parallel through the mouth of Yassous River (now the Yazoo), said to be in latitude  $32^{\circ} 28'$ .<sup>74a</sup> (Geological Survey maps show an old mouth of the Yazoo in latitude  $32^{\circ} 22'$ .)

<sup>72</sup> Alabama Code, 1876, p. 189.

<sup>73</sup> Janes, T. P., *op. cit.*, p. 121.

<sup>74</sup> 13 Howard, 381 (19 U. S. 542).

<sup>74a</sup> Lowry & McCordle, A history of Mississippi, Jackson, 1891; Donaldson, Thomas, *op. cit.*, p. 108.

The peace treaty concluded in 1782 between the United States and Great Britain specified the thirty-first parallel as the boundary between the United States and West Florida, but by a separate article provided as follows:<sup>75</sup>

It is hereby understood and agreed that in case Great Britain, at the conclusion of the present war, shall recover or be put in possession of West Florida, the line of north boundary between the said province and the United States shall be a line drawn from the mouth of the river Yassous, where it unites with the Mississippi, due east to the river Apalachicola.

In 1783 Great Britain retroceded Florida to Spain without a definite settlement of the northern boundary of West Florida, which at once became a matter of dispute between the United States and Spain. Spain claimed the territory as far north as the parallel through the mouth of the Yassous, whereas the United States claimed the thirty-first parallel as the boundary under the treaties of 1782 and 1783, and on that parallel it was fixed by the treaty with Spain signed October 20, 1795.<sup>76</sup>

On March 30, 1822, by an act of Congress,<sup>77</sup> the territory ceded to the United States by Spain was made the Territory of Florida, embracing the same area as the present State.

On March 3, 1845, Florida was admitted to the Union as an independent State.<sup>78</sup>

For a history of the northern boundary of Florida see Georgia, pages 139-141.

In 1831 Congress passed an act relating to the boundary between Florida and Alabama, of which the following is an extract:<sup>79</sup>

That the President of the United States be, and he is hereby, authorized to cause to be run and marked the boundary line between the state of Alabama and the territory of Florida, by the surveyors-general of Alabama and Florida, on the thirty-first degree of north latitude.

In 1847 the agreement of commissioners previously appointed by Florida and Alabama was ratified, and the line is described as follows:<sup>80</sup>

Commencing on the Chattahoochee River near a place known as "Irwin's Mills" and running West to the Perdido, marked throughout by blazes on the trees; and also by mounds of earth thrown up on the line, at distances of one mile, more or less, from each other, and commonly known as the "Mound Line," or "Ellicott's Line."

<sup>75</sup> Malloy, W. M., op. cit., vol. 1, p. 584.

<sup>76</sup> Chambers, H. E., West Florida and its relations to the historical cartography of the United States; Johns Hopkins Univ. Studies in Historical and Political Science, May, 1898. See also 13 Howard, 406 (19 U. S. 552); Fairbanks, G. R., History of Florida, p. 209, Philadelphia, 1871; Fuller, H. B., The purchase of Florida, Cleveland, 1906.

<sup>77</sup> 3 Stat. L. 654.

<sup>78</sup> 5 Stat. L. 742.

<sup>79</sup> 4 Stat. L. 479.

<sup>80</sup> Florida acts and resolutions, 3d sess., p. 36, Tallahassee, 1848.

This line was run in 1799 by Andrew Ellicott. It was retraced and re-marked in 1853-54 by B. F. Whitner, jr., and again retraced in 1911, by authority of an act of Congress approved June 25, 1910.<sup>81</sup>

The examiner in 1911 reported<sup>82</sup> that

Many of the mounds erected by Whitner in reestablishing the "Ellicott" line are in perfect condition and are the best evidence remaining of the original surveys in the vicinity.

The line between the two States is given in general terms in the Florida Code as follows:

Commencing at the mouth of the Perdido River, from thence up the middle of said river to where it intersects the south boundary line of the State of Alabama and the thirty-first degree of north latitude; then due east to the Chattahoochee River.

#### ALABAMA.

On March 8, 1817, by an act of Congress Alabama Territory was formed from the eastern part of Mississippi Territory with the following boundaries<sup>83</sup> (see fig. 11):

beginning at the point where the line of the thirty-first degree of north latitude intersects the Perdido river; thence east to the western boundary line of the state of Georgia; thence along said line to the southern boundary line of the state of Tennessee; thence west along said boundary line to the Tennessee river;<sup>84</sup> thence up the same to the mouth of Bear creek; thence by a direct line to the northwest corner of Washington county; thence due south to the Gulf of Mexico; thence eastwardly, including all the islands within six leagues of the shore, to the Perdido river; and thence up the same to the beginning.

On December 14, 1819, Alabama was admitted as an independent State, with boundaries as above described.

An act of Congress approved March 2, 1819,<sup>85</sup> made it

the duty of the surveyor of the lands of the United States south of the state of Tennessee, and the surveyor of the public lands in the Alabama territory, to run and cut out the line of demarcation, between the state of Mississippi and the state to be formed of the Alabama territory; and if it should appear to said surveyors, that so much of said line designated in the preceding section, running due south, from the north-west corner of Washington county to the Gulf of Mexico, will encroach on the counties of Wayne, Green, or Jackson, in said state of Mississippi, then the same shall be so altered as to run in a direct line from the north-west corner of Washington county to a point on the Gulf of Mexico, ten miles east of the mouth of the river Pascagola.

In 1820, in accordance with this statute, a trial line was run north from the northwest corner of Washington County, marked by a stump of an oak tree 20 feet tall, to the mouth of Bear Creek on

<sup>81</sup> 36 Stat. L. 844.

<sup>82</sup> 61st Cong., 3d sess., H. Doc. 1413, p. 19.

<sup>83</sup> 3 Stat. L. 371.

<sup>84</sup> The western crossing of Tennessee River is intended.

<sup>85</sup> 3 Stat. L. 491.

Tennessee River, from which the true bearing of this part of the boundary was found to be N. 2° 8' E. The final line was run on that course, and posts were established at each mile, the measured distance being 204 miles 30 chains.

Another party ran a trial line due south to the Gulf, from which it was found<sup>86</sup> that

the experimental line encroached on the Counties of Wayne, Green and Jackson in the State of Mississippi & \* \* \* falls on the Gulf of Mexico six miles, 22 chains & 54 links East of the Mouth of the river or Bay of Pascagoula [also spelled Pascagoula] \* \* \* we have determined to alter said line to a point on the Gulf of Mexico three miles, 57 chains & 46 links East of the experimental line, \* \* \* which will be ten miles east of the mouth of the river or Bay of Pascagoula, and there fix permanently the termination of the boundary line between the States of Mississippi & Alabama.

The final line was run and marked as above described for a distance of a little more than 102 miles, and a terminal mound was established about 3 miles from the Gulf, further progress being prevented by swamps. The entire line was cleared, all near-by trees were blazed, posts were set at each mile, and at important points mounds of earth 12 feet at the base and 5 feet high were erected.

The boundary between Alabama and Mississippi is described as follows:<sup>87</sup>

[Beginning at] a point on the west bank of the Tennessee river, six four-pole chains south of and above the mouth of Yellow creek; thence up the said river to the mouth of Bear creek; thence by a direct line to what was formerly the northwest corner of the county of Washington, (Ala.); thence in a direct line to a point ten miles east of the Pascagoula river, on the Gulf of Mexico:

The boundary between Alabama and Tennessee is by statute the thirty-fifth parallel of north latitude (see North Carolina, p. 130); from Nickajack (see Georgia, p. 141) the line runs<sup>88</sup>

west along the southern boundary line of the state of Tennessee crossing the Tennessee river, and on to second intersection of said river by said line.

In October, 1807, Thomas Freeman made sextant observations for latitude a short distance east of Elk River (near longitude 87°). He marked a point which he estimated was on the thirty-fifth parallel, the north boundary of the area then called the Mississippi Territory, and ran the line between Elk River and the old Cherokee line, a distance of about 30 miles. In 1817 the line was extended westward to Tennessee River, a measured distance of a little more than 71½ miles. Between 1822 and 1839 this boundary line was run eastward as far as the northwest corner of Georgia. The notes of

<sup>86</sup> Manuscript dated May 29, 1820, signed by John Coffee and Thomas Freeman, U. S. surveyors; reports and plats are on file in the General Land Office, division L.

<sup>87</sup> Whitefield, Catchings, and Hardy, *The Mississippi code of 1906*, p. 244.

<sup>88</sup> Keys and Wood, *Code of Alabama*, p. 189, Montgomery, 1877.



these surveys are in the Alabama field notebooks of the General Land Office.

For the history of the boundary between Alabama and Georgia see Georgia, pages 138, 141-142, and for the history of the boundary between Alabama and Florida see Florida, pages 143-144.

The northeast corner of Alabama, as now marked, is more than a mile south of the thirty-fifth parallel. The north boundary crosses the thirty-fifth parallel near longitude  $87^{\circ} 20'$ , and at the northwest corner of the State it is about half a mile north of its proper position as defined by statute. The latitude and longitude of a number of points on the western part of the north boundary are given in United States Geological Survey Bulletins 216, 276, 440, and 551.

#### MISSISSIPPI.

In 1798 the United States formed the Mississippi Territory including<sup>89</sup> (see fig. 11)

All that tract of country bounded on the west by the Mississippi, on the north by a line to be drawn due east from the mouth of the Yasous<sup>89</sup> to the Chatahouchee; on the east by the Chatahouchee; and on the south by the thirty-first degree of north latitude.

South Carolina and Georgia having ceded to the United States their claims to territory west of their present limits, the General Government in 1804, by an act of Congress, annexed to the Mississippi Territory the tract of country lying north of Mississippi Territory and south of the State of Tennessee and bounded on the east by Georgia and west by Louisiana.<sup>90</sup> In 1812 the United States added to Mississippi Territory all the lands lying east of Pearl River, west of the Perdido, and south of the thirty-first degree of latitude.<sup>91</sup> By these additions the Mississippi Territory was made to comprise what is now included in the two States of Alabama and Mississippi.

On December 10, 1817, the western part of the Mississippi Territory was made a State and admitted into the Union,<sup>92</sup> with boundaries (see fig. 11) given in the enabling act of March 1, 1817, as follows:<sup>93</sup>

Beginning on the river Mississippi at the point where the southern boundary of the state of Tennessee strikes the same, thence east along the said boundary

<sup>89</sup> 1 Stat. L. 549. Yasous River is now called the Yazoo (see p. 142).

<sup>90</sup> 2 Stat. L. 305.

<sup>91</sup> 2 Stat. L. 734.

<sup>92</sup> 3 Stat. L. 472.

<sup>93</sup> 3 Stat. L. 348. There is a historical description of the Mississippi boundary line in the Revised Code of the statute laws of Mississippi, pp. 47-49, Jackson, 1857.

line to the Tennessee river, thence up the same to the mouth of Bear Creek, thence by a direct line to the northwest corner of the county of Washington, thence due south to the Gulf of Mexico, thence westwardly, including all the islands within six leagues of the shore, to the most eastern junction of Pearl river with Lake Borgne, thence up said river to the thirty-first degree of north latitude; thence west along said degree of latitude to the Mississippi river; thence up the same to the beginning.

For further information concerning the eastern boundary see Alabama, pages 144-145.

In 1819 the line between Mississippi and Tennessee was run by commissioners. In 1833 the Legislature of Tennessee passed an act

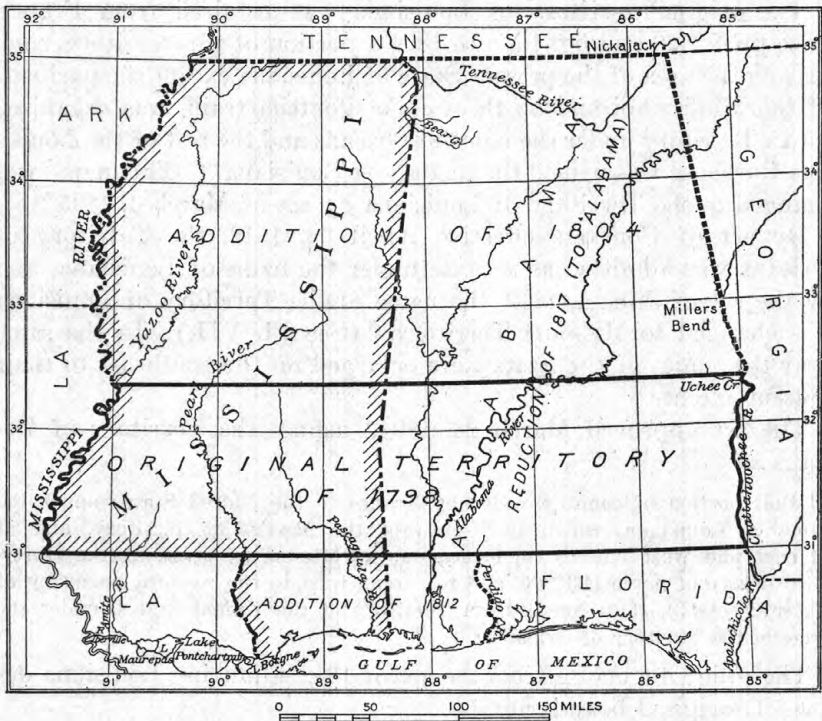


FIGURE 11.—Historical diagram of Mississippi.

establishing "Thompson's line." In 1837 the line was again run by commissioners from the two States and ratified by the legislatures. The commissioners' report was as follows:<sup>94</sup>

Commencing at a point on the west bank of the Tennessee river six four-pole chains south, or above the mouth of Yellow Creek, and about three-quarters of a mile north of the line known as "Thompson's line," and twenty-six chains and ten links north of Thompson's line at the basis meridian of the Chickasaw surveys, and terminating at a point on the east bank of the Mississippi river (opposite Cow Island) sixteen chains north of Thompson's line.

<sup>94</sup> Tennessee Laws, p. 27, 1837.

By joint resolutions approved January 26, 1909,<sup>95</sup> Congress authorized the States of Mississippi and Louisiana and Mississippi and Arkansas to fix the river boundary lines between them and to cede the one to the other any tracts of land that had been separated from the main body of either State by changes in the channel of Mississippi River.<sup>96</sup>

In the State code the Mississippi River boundary is described as "the Mississippi river (meaning thereby the centre of said river or thread of stream)."

#### LOUISIANA.

The original territory of Louisiana was acquired from France. (See pp. 22-28 and fig. 1.) In 1804 a portion of this territory, comprising the area of the present State of Louisiana except the part east of the Mississippi and north of Lake Pontchartrain, was organized into a Territory under the name of Orleans and the rest of the Louisiana Purchase was named the district of Louisiana.<sup>97</sup> This name was changed to the Territory of Louisiana by act of March 3, 1805.<sup>98</sup>

By act of Congress effective April 30, 1812, the Territory of Orleans was admitted as a State under the name of Louisiana, and by the act of June 4, 1812, the name of the Territory of Louisiana was changed to Missouri Territory. (See Pl. VII.) In the same year the limits of the State were enlarged on the southeast to their present extent.<sup>99</sup>

The act approved March 26, 1804,<sup>1</sup> defines the Territory of Orleans as

all that portion of country, ceded by France to the United States under the name of Louisiana, which lies south of the Mississippi territory, and of an east and west line to commence on the Mississippi river, at the thirty-third degree of north latitude, and to extend west to the western boundary of the said cession, shall constitute a Territory of the United States, under the name of the territory of Orleans.

The following clause from the act of 1812 admitting Louisiana defines its original boundaries:<sup>2</sup>

beginning at the mouth of the river Sabine; thence by a line to be drawn along the middle of said river, including all islands, to the thirty-second degree of latitude; thence due north, to the northernmost part of the thirty-third degree of north latitude; thence along the said parallel of latitude to the river Mississippi; thence down the said river to the river Iberville, and from thence along the middle of the said river and lakes Maurepas and Ponchartrain to

<sup>95</sup> 35 Stat. L. 1160, 1161.

<sup>96</sup> Similar authority was granted to Missouri and Kansas and to Oregon and Washington in 1910 (36 Stat. L. 881). See also 211 U. S. 127 and 214 U. S. 217.

<sup>97</sup> 2 Stat. L. 283.

<sup>98</sup> 2 Stat. L. 331.

<sup>99</sup> 2 Stat. L. 708.

<sup>1</sup> 2 Stat. L. 283.

<sup>2</sup> 2 Stat. L. 702.

the Gulf of Mexico; thence, bounded by the said gulf, to the place of beginning, including all islands within three leagues of the coast.

Iberville River is now known as Bayou Manchac. (See p. 23.)

The following is a description of the addition to the State of Louisiana in terms of the act approved April 14, 1812:<sup>3</sup>

Beginning at the junction of the Iberville with the river Mississippi, thence along the middle of the Iberville, the river Amite, and of the lakes Maurepas and Pontchartrain, to the eastern mouth of the Pearl River; thence up the eastern branch of Pearl River to the thirty-first degree of north latitude; thence along the said degree of latitude to the river Mississippi; thence down the said river to the place of beginning, shall become and form a part of the State of Louisiana.

The north boundary of the Territory of Orleans (now the State of Louisiana) was surveyed in 1806, presumably along the thirty-third parallel, from the west bank of Mississippi River to the east bank of Red River, a reported distance of 147 miles 49 chains. Most of the marks were blazed trees. This location of the line was accepted in 1841 as the State boundary. From mile 101 to Red River this line was resurveyed and re-marked in 1841. Other parts of the line have been resurveyed as part of the regular work of the General Land Office.

West of Red River the line was surveyed in 1839. The western 6 miles was resurveyed in 1895, and a stone post 48 inches long and 10 inches square was placed on the Texas line to mark the northwest corner of the State.

The Geological Survey has located points on this line as follows: Near east end of line, latitude 33° 00' 16.5'', longitude 91° 13' 21.2'', near Arkana, latitude 33° 01' 11.0'', longitude 93° 40' 24.7'', 1½ miles east of the northwest corner of the State, latitude 33° 01' 09.7'', longitude 94° 01' 18.6''. For reference to the survey of the west boundary, see Texas, below.

#### TEXAS.

Texas declared its independence of Mexico in 1835. As originally constituted, it embraced, besides its present area, the region east of the Rio Grande and a line from the source of that river north to are forty-second parallel, its eastern and northern limits coinciding with the western limits of the United States, as laid down in the treaty with Spain of 1819. (See Texas accession, p. 30, and fig. 12.)

The eastern boundary of the Republic of Texas, which followed the west (right) bank of Sabine River, was surveyed in 1840 by a joint commission representing the United States and Texas from the Gulf to Logans Ferry, the observed latitude of which was found to be 31° 58' 24'' and the longitude 94° 00' 02.4''.

<sup>3</sup>2 Stat. L. 708.



In the following year another commission ran the line northward along the river to the thirty-second parallel as determined from astronomic observations, thence along a true north line to the south

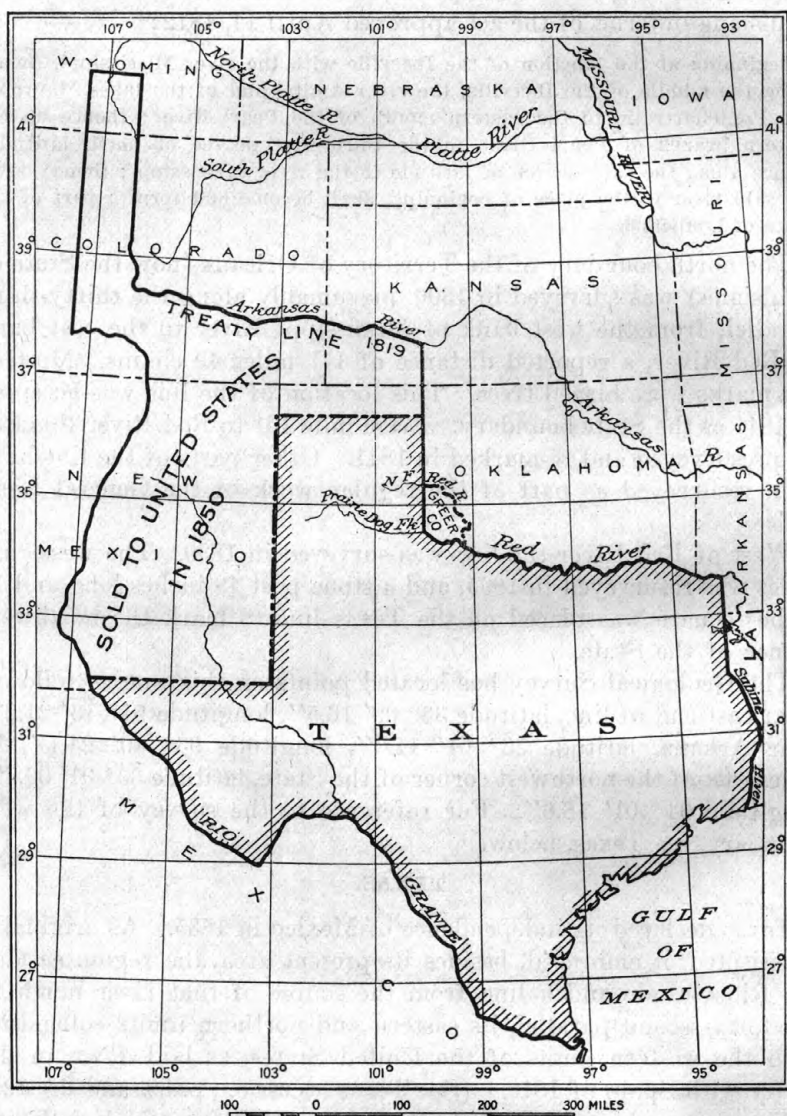


FIGURE 12.—Historical diagram of Texas.

bank of Red River. Mounds were erected at 1-mile intervals on the meridian boundary, the measured length of which was found to be a little less than  $106\frac{1}{2}$  miles. The original plats of this survey are on file in the United States State Department, and the General Land

Office has copies. The field notes were probably filed in the War Department.<sup>4</sup>

In a joint resolution approved March 1, 1845, Congress gave its consent for the erection of Texas into a State with certain conditions and "guarantees," the third of which was as follows:<sup>5</sup>

New States, of convenient size, not exceeding four in number, in addition to said State of Texas, and having sufficient population, may hereafter, by the consent of said State, be formed out of the territory thereof, which shall be entitled to admission under the provisions of the Federal constitution.

Texas does not appear, however, to have acquired by this proviso any advantages over other States, as it merely can give its "consent" to a division of its area, the right to make the recommendation or request for the division apparently resting with Congress.

On December 29, 1845, Texas was admitted as a State.<sup>6</sup>

In 1848 the eastern boundary of the State was extended slightly, as noted in the following extract from the act:<sup>7</sup>

That this Congress consents that the legislature of the State of Texas may extend her eastern boundary so as to include within her limits one-half of Sabine Pass, one-half of Sabine Lake, also one-half of Sabine River, from its mouth as far north as the thirty-second degree of north latitude.

In 1850 the State sold to the General Government for the sum of \$10,000,000 that part lying north of the parallel of  $36^{\circ} 30'$  from longitude  $100^{\circ}$  to longitude  $103^{\circ}$  and west of longitude  $103^{\circ}$  as far south as the parallel of  $32^{\circ}$ .<sup>8</sup>

The northern boundary of Texas from the one-hundredth meridian westward is thus described in an act of Congress authorizing the marking of the boundary lines between the Territories of the United States and the State of Texas:<sup>9</sup>

Beginning at the point where the one hundredth degree of longitude west from Greenwich crosses Red River, and running thence north to the point where said one hundredth degree of longitude intersects the parallel of thirty-six degrees thirty minutes north latitude; and thence west with the said parallel of thirty-six degrees and thirty minutes north latitude to the point where it intersects the one hundred and third degree of longitude west from Greenwich; and thence south with the said one hundred and third degree of longitude to the thirty-second parallel of north latitude; and thence west with said thirty second degree of north latitude to the Rio Grande.

For more than 50 years the title to an area of over 2,360 square miles was in dispute between the State of Texas and the United States. This area, known as Greer County, is east of the one

<sup>4</sup> The journal of the commission and some excellent maps of the survey were published in 27th Cong., 2d sess., S. Doc. 199, 1842.

<sup>5</sup> 5 Stat. L. 798.

<sup>6</sup> 9 Stat. L. 108.

<sup>7</sup> 9 Stat. L. 245.

<sup>8</sup> 9 Stat. L. 446.

<sup>9</sup> 11 Stat. L. 310.

hundredth meridian and between the two main forks of Red River, which branch in approximately  $99^{\circ} 12'$  of west longitude. (See fig. 18.) Texas claimed that the North Fork of Red River is the main stream and the one referred to in the description of the boundary in the Spanish treaty of 1819, and the United States claimed the South Fork as the proper location of the boundary. After years of litigation the Supreme Court on March 16, 1896, decided that

the territory east of the 100th meridian of longitude, west and south of the river now known as the North Fork of Red River, and north of a line following westward, as prescribed by the treaty of 1819 between the United States and Spain, the course, and along the south bank, both of Red River and of the river now known as the Prairie Dog Town Fork or South Fork of Red River until such line meets the 100th meridian of longitude—which territory is sometimes called Greer County—constitutes no part of the territory properly included within or rightfully belonging to Texas at the time of the admission of that State into the Union, and is not within the limits nor under the jurisdiction of the State, but is subject to the exclusive jurisdiction of the United States of America.

The Supreme Court records of this case, which cover more than 1,000 printed pages, are summarized in the decree of 36 pages. These documents contain much historical matter relating to the northern and eastern boundary of Texas, also copies of a number of old maps, etc.<sup>10</sup>

Attention is called to the clause of the decree that places the boundary line on the south bank of Red River, where it was believed old treaties and other official descriptions of the line intended it should be placed.<sup>11</sup> This boundary has also been in dispute for many years, Texas claiming to the middle of the river. In decisions of the Department of the Interior relating to public lands,<sup>12</sup> there is an opinion rendered on April 29, 1897, by the Assistant Attorney General regarding this boundary as follows:

I therefore assume that the boundary between the Indian Territory and the State of Texas is the line of the middle of the main channel of Red River as it existed when Texas was annexed to the United States, and subsequent sudden changes in the current or main channel of said river will not in any way affect the location or position of said boundary line as it lay upon the earth's surface when established.

In this opinion no reference was made to the decision of the Supreme Court of the previous year in which a contrary opinion was rendered.

<sup>10</sup> See Baker, Marcus, *The northwest boundary of Texas*: U. S. Geol. Survey Bull. 194, pp. 31–35. See also Oklahoma, p. 194.

<sup>11</sup> See reference to the "right bank of the Red River" in the act of 1824, defining the west boundary of Arkansas, p. 157.

<sup>12</sup> Land Dec., vol. 24, p. 372.

Briefs in a suit by Oklahoma against Texas were submitted to the United States Supreme Court at its October term, 1920, and the decision, rendered April 11, 1921, reaffirmed the former decision making the south bank the boundary, and in a decision rendered January 15, 1923, as to what constituted the south bank it was stated that

the bank intended by the treaty provision is the water-washed and relatively permanent elevation or acclivity at the outer line of the river bed which separates the bed from the adjacent upland, \* \* \* and that the boundary intended is on and along the bank at the average or mean level attained by the waters in the periods when they reach and wash the bank without overflowing it.

The bed of the stream was defined as including

all of the area which is kept practically bare of vegetation by the wash of the waters of the river from year to year \* \* \*

and excluding

the lateral valleys which have the characteristics of relatively fast land and usually are covered by upland grasses and vegetation, although temporarily overflowed in exceptional instances when the river is at flood.

An excellent historical review of this boundary dispute is given by Isaiah Bowman,<sup>12a</sup> who states that the Red River case is "the most complicated boundary dispute on record anywhere."

Surveys of the one-hundredth meridian boundary in whole or in part were made under the direction of the General Land Office in 1857, 1859, 1860, 1873, 1875, 1902, and 1903.

In 1892 the State of Texas employed an astronomer to determine "with the utmost care the location of the one-hundredth meridian in its intersection with the Red River." As a result of this work it was reported that the old "initial monument," established in 1859, of the Oklahoma-Texas boundary, previously supposed to be on the one-hundredth meridian, was in longitude 100° 00' 45.11" and latitude 34° 34' 43.4".

The position of this point was redetermined in 1902 for the United States by surveyors of the General Land Office, and its longitude was found to be 100° 00' 44.24", or 3,699.7 feet west of the true one-hundredth meridian.

On the computed position of the one-hundredth meridian a stone post 10 by 10 by 45 inches in size was placed 1,563 feet north of Red River.<sup>13</sup>

The line previously marked as the one-hundredth meridian boundary was retraced in 1903 by the General Land Office from Red

<sup>12a</sup> Geog. Review, April, 1923, pp. 161-189.

<sup>13</sup> 57th Cong., 2d sess., H. Doc. 33, p. 8.



River northward to the parallel of  $36^{\circ} 30'$  and observation was made for longitude near its north end. These observations gave a position differing only  $0.22''$  from that brought up from Red River.<sup>14</sup>

The northern line of the "Panhandle" of Texas, which is the southern boundary of the "public-land strip," was fixed by statute at latitude  $36^{\circ} 30'$ . The west end of this line as marked has since been found to be in latitude  $36^{\circ} 29' 58''$ . It was surveyed in 1860 by the General Land Office, and 16 monuments were erected. This location of the boundary and the location of the one hundred and third meridian boundary were confirmed by Congress in 1891 and by the State of Texas in the same year.<sup>15</sup>

The location of the west boundary of Texas, which by statute is the one hundred and third meridian, has been the cause of many disputes. The southern part of the line for 38 miles and the northern part for 156 miles were surveyed and marked in 1859, leaving an unmarked gap of about 116 miles. Most of the marks were merely mounds of earth; a few were stones or piles of stone, and some of these were identified many years thereafter. (See Pl. V, *C.*) Later surveys disclosed the fact that the northern part of the line is in longitude  $103^{\circ} 02' 13.80''$  and the southern part in  $103^{\circ} 03' 55.02''$ —that is, there is a discrepancy between the two lines of more than a mile and a half, and both lines are west of their proper position<sup>16</sup>—but these lines, as well as that following the thirty-second parallel, having been accepted by the United States and Texas, are the legal boundary lines.

An act of Congress approved February 16, 1911,<sup>17</sup> declared that "these boundary lines as run and marked by John H. Clark in 1859–60<sup>18</sup> shall remain the true boundary lines of Texas and New Mexico." The lines were described in the act as following the one hundred and third meridian and thirty-second parallel as "determined by Clark," and commissioners were authorized to act for Texas and the United States to re-mark the line so far as it could be identified, and where no marks were found or where surveys had not been made straight lines were to be run joining recovered points.

In accordance with this act surveys were run south from the known location of the north boundary mark, the position of which is latitude  $36^{\circ} 29' 58''$ , longitude  $103^{\circ} 02' 13.8''$ , to the thirty-fourth parallel, to which Clark claimed to have run, and north from the

<sup>14</sup> 59th Cong., 1st sess., H. Doc. 259, p. 4.

<sup>15</sup> *Idem*, p. 13.

<sup>16</sup> *Idem*, p. 18. See also Baker, Marcus, *op. cit.*, for map and other data.

<sup>17</sup> 36 Stat. L. 1455.

<sup>18</sup> See report by J. H. Clark, commissioner: 47th Cong., 1st sess., S. Doc. 70.

identified mark established by Clark for the intersection of the thirty-second parallel and the one hundred and third meridian (latitude  $31^{\circ} 59' 58.02''$ , longitude  $103^{\circ} 03' 55.52''$ ) to the thirty-third parallel; between these two terminal points a straight line was run which bears N.  $1^{\circ} 00' 42''$  E. Large concrete monuments (Pl. V and fig. 20) were established at a number of points, and other substantial marks were placed at each mile. The thirty-second parallel boundary was also run in 1911; its length as measured was a little more than 209 miles. The notes and plats of these surveys are on file in the General Land Office.

The southern boundary of Texas is a part of the international boundary between the United States and Mexico and as defined by the treaty of 1848 and reaffirmed by the treaty of 1853 follows the middle of the deepest channel of the Rio Grande from the Gulf of Mexico to the southern boundary of New Mexico. A survey of this boundary was made in 1852-53. The report was published in 1857. It is generally referred to as the Emory report on the survey of the Mexican boundary.<sup>19</sup>

Resurveys of parts of the boundary where important changes in the position of the river had occurred were provided for by the convention of 1884. The following extracts from the conventions of 1884 and 1905<sup>20</sup> set forth the principles that now govern the location of this boundary.

The dividing line shall \* \* \* follow the center of the normal channel of the rivers named, notwithstanding any alterations \* \* \* effected by natural causes through the slow and gradual erosion \* \* \* and not by the abandonment of an existing bed and the opening of a new one.

Any other change wrought by the force of the current, \* \* \* shall produce no change in the dividing line as fixed by the surveys of \* \* \* 1852, but the line then fixed shall continue to follow the middle of the original channel bed, even though this should be wholly dry. [Convention of 1884.]

Modifications of the articles of the convention of 1884 were made by the convention of 1905, which authorized the elimination from the effects of the agreements in the earlier convention of numerous changes in the position of the "normal channel" as follows:

Whereas \* \* \* it has been observed that there is a typical class of changes effected in the bed of the Rio Grande, in which, owing to slow and gradual erosion, coupled with avulsion, said river abandons its old channel and there are separated from it small portions of land known as "bancos" bounded by the said old bed, and which, according to the terms of \* \* \*

<sup>19</sup> 34th Cong., 1st sess., S. Ex. Doc. 108, 1857.

<sup>20</sup> Malloy, W. M., op. cit., vol. 1, pp. 1159, 1199.

the Convention of 1884, remain subject to the dominion and jurisdiction of the country from which they have been separated;

Whereas said "bancos" are left at a distance from the new river bed, and, by reason of the successive deposits of alluvium, the old channel is becoming effaced, the land of said "bancos" becomes confused with the land of the "bancos" contiguous thereto, thus giving rise to difficulties and controversies,  
\* \* \*

Whereas the labors of the International Boundary Commission, undertaken with the object of fixing the boundary line with reference to the "bancos," have demonstrated that the application to these "bancos" of the principle established in \* \* \* the Convention of 1884 renders difficult the solution of the controversies mentioned, and, instead of simplifying, complicates the said boundary line between the two countries;

Article 1 refers to maps made from surveys of 58 bancos along the lower Rio Grande which the convention eliminates, those on the right bank of the river passing to Mexico and those on the left bank to the United States.

Article 2 is in part:

The International Commission shall, in the future, be guided by the principle of elimination of the bancos established in the foregoing article \* \* \*. There are hereby excepted from this provision the portions of land segregated by the change in the bed of the said rivers having an area of over two hundred and fifty hectares, or a population of over two hundred souls, and which shall not be considered as bancos for the purposes of this treaty and shall not be eliminated, the old bed of the river remaining, therefore, the boundary in such cases.

Article 3 required that other bancos be surveyed and that suitable marks be placed in the abandoned river bed.<sup>21</sup>

The present boundary lines of Texas are described as follows: Beginning in the Gulf of Mexico, at the outlet of Sabine Lake, the line passes northward through the middle of Sabine Lake and up the middle of Sabine River to the point where the river intersects the parallel of 32°; thence north along the meridian of that point of intersection to the point where that meridian intersects Red River; thence up the south bank of Red River along the south fork to the one hundredth meridian west of Greenwich as marked; thence north on that meridian to the parallel of 36° 30'; west on that parallel to the meridian of 103° as marked; thence south on the one hundred and third meridian to the parallel of latitude of 32°; thence west on that parallel to its point of intersection with the Rio Grande; thence down the mid-channel of the Rio Grande to the boundary line between the United States and Mexico; thence following that line (see pp. 30-31) to the Gulf.

<sup>21</sup> See reports published about 1913 by U. S. Dept. State, in two volumes, which include maps or descriptions of 89 bancos that have been eliminated.

## ARKANSAS.

Arkansaw<sup>22</sup> Territory was formed by act of March 2, 1819, effective July 4, 1819, from a part of Missouri Territory. (See fig. 13.) The following clause from the act establishing it defines its limits in part:<sup>23</sup>

all that part of the Territory of Missouri which lies south of a line, beginning on the Mississippi River, at thirty-six degrees, north latitude, running thence west to the river St. François; thence up the same to thirty-six degrees thirty minutes north latitude; and thence west to the western territorial boundary line; shall, for the purposes of a territorial government, constitute a separate territory and be called the Arkansaw Territory.

In 1824 an act was passed by Congress fixing the western boundary of the Territory. This was as follows:<sup>24</sup>

the western boundary line of the territory of Arkansas shall begin at a point forty miles west of the southwest corner of the State of Missouri and run south to the right bank of the Red River, and thence down the river and with the Mexican boundary to the line of the State of Louisiana.<sup>25</sup>

Four years later, in 1828, an act defined the southern boundary as commencing on the right bank of the Mississippi river at latitude thirty-three degrees north, and running due west on that parallel of latitude to where a line running due north from latitude thirty-two degrees north, on the Sabine river, will intersect the same.

The treaty with the Cherokee Indians signed May 6, 1828, contained the following article:<sup>26</sup>

The western boundary of Arkansas shall be, and the same is, hereby defined, viz: A line shall be run, commencing on Red river, at the point where the Eastern Choctaw line strikes said river, and run due north with said line to the river Arkansas; thence in a direct line to the South West corner of Missouri.

The eastern Choctaw line referred to was fixed by the treaty with the Choctaw Nation of January 20, 1825, as beginning on Arkansas River "one hundred paces east of Fort Smith, and running thence due south to the Red River."<sup>27</sup>

Arkansas was admitted as a State on June 15, 1836. The enabling act approved on that date describes the boundaries as follows:<sup>28</sup>

<sup>22</sup> This is the original spelling. A concurrent resolution passed by the Legislature of Arkansas in April, 1881 (Laws of 1881, pp. 216-217), declared that in the opinion of that body the State name "should be pronounced in three syllables with the final 's' silent, the 'a' in each syllable with the Italian sound and the accent on the first and last syllables." The discussions which led to the passage of this act are given in Arkansas Hist. Assoc. Pubs., vol. 2, pp. 462-477, Fayetteville, Ark., 1908.

<sup>23</sup> 3 Stat. L. 494.

<sup>24</sup> 4 Stat. L. 40.

<sup>25</sup> 4 Stat. L. 276.

<sup>26</sup> Kappler, C. J., Indian Affairs laws and treaties: 57th Cong., 1st sess., S. Doc. 452, vol. 2, p. 149, also 7 Stat. L. 311.

<sup>27</sup> Idem, p. 20.

<sup>28</sup> 5 Stat. L. 50.



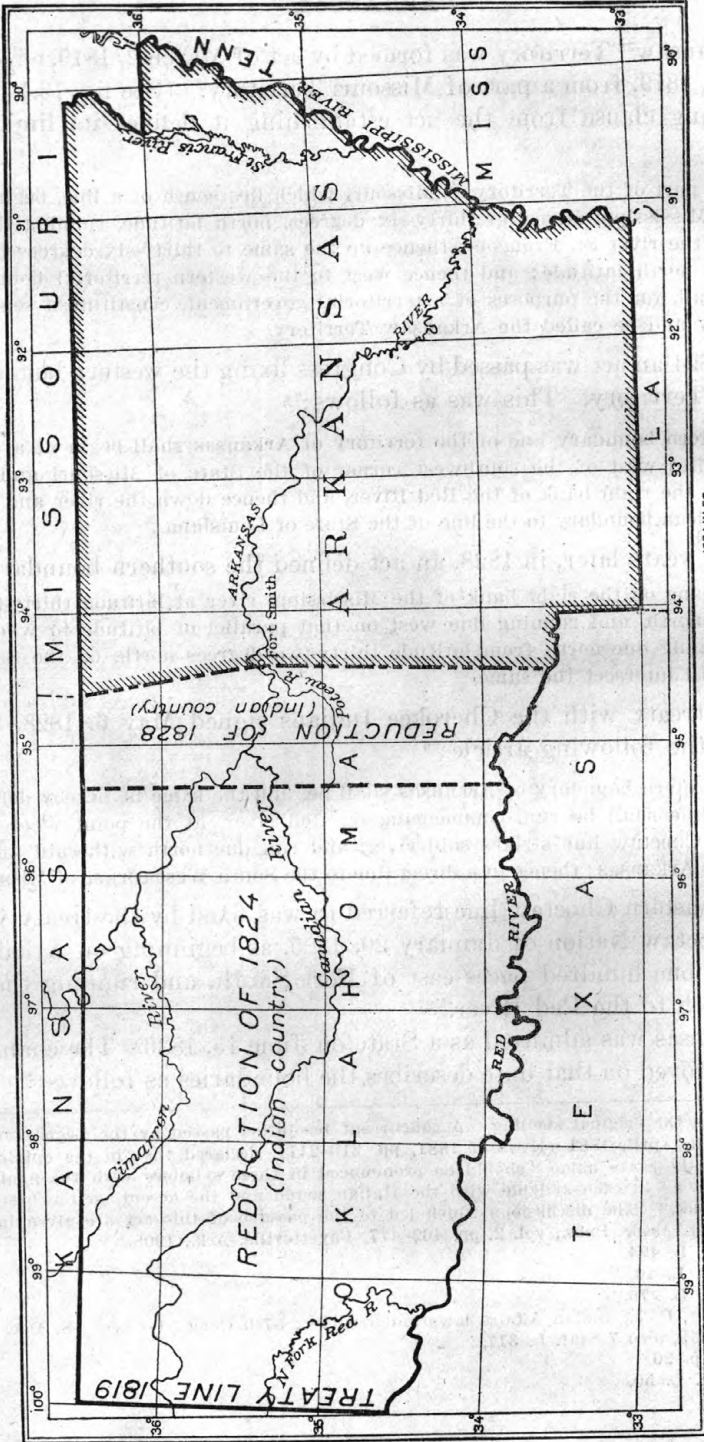


FIGURE 13.—Historical diagram of Arkansas.

beginning in the middle of the main channel of the Mississippi river, on the parallel of thirty-six degrees north latitude, running from thence west, with the said parallel of latitude, to the Saint Francis river; thence up the middle of the main channel of said river to the parallel of thirty-six degrees thirty minutes north; from thence west to the southwest corner of the State of Missouri; and from thence to be bounded on the west, to the north bank of Red River, by the lines described in the first article of the treaty between the United States and the Cherokee nation of Indians, west of the Mississippi, made and concluded at the city of Washington, on the 26th day of May,<sup>28a</sup> in the year of our Lord one thousand eight hundred and twenty-eight; and to be bounded on the south side of Red river by the Mexican boundary line, to the northwest corner of the State of Louisiana; thence east with the Louisiana State line, to the middle of the main channel of the Mississippi River; thence up the middle of the main channel of the said river, to the thirty-sixth degree of north latitude, the point of beginning.

In the State constitutions for 1836, 1854, 1868, and 1874 the boundaries were described but without material changes from those as given in the enabling act. The constitution of 1868 refers to an island in the Mississippi named Belle Point Island as belonging to Arkansas, and the constitution of 1874 includes this clause: "and all other land originally surveyed and included as a part of the Territory or State of Arkansas."

An act of Congress approved February 10, 1905, changed the western boundary of Arkansas near Fort Smith so as to include in that State a portion of the Indian Territory (about one-fifth of a square mile), the boundaries of which were described as follows<sup>29</sup> (see fig. 18):

Beginning at a point on the south bank of the Arkansas River one hundred paces east of old Fort Smith, where the western boundary line of the State of Arkansas crosses the said river, and running southwesterly along the south bank of the Arkansas River to the mouth of the Poteau; thence at right angles with the Poteau River to the center of the current of said river; thence southerly up the middle of the current of the Poteau River (except where the Arkansas State line intersects the Poteau River) to a point in the middle of the current of the Poteau River opposite the mouth of Mill Creek, and where it is intersected by the middle of the current of Mill Creek; thence up the middle of Mill Creek to the Arkansas State line; thence northerly along the Arkansas State line to the point of beginning.

By order of the United States Supreme Court (October term, 1919) commissioners in 1920 surveyed and marked a portion of the Arkansas-Mississippi State line, commencing about 1 mile below Friars Point, Miss., on an abandoned bed of Mississippi River left dry by the avulsion of 1848. The line inclosed an area of about 5 square miles on the east side of the Mississippi as it now flows, which was awarded to Arkansas.

The north boundary of Arkansas was surveyed in 1823 and re-surveyed by a joint commission of Arkansas and Missouri between

<sup>28a</sup> This is an error; the date was May 6.

<sup>29</sup> 33 Stat. L. 714.

1843 and 1846, commencing at a point near the Mississippi whose latitude from sextant observation was determined as 36°. The marks consisted of tree blazes, wooden posts, and mounds of earth and stone. The 1843 line, which differed materially from that previously marked, was accepted by the legislatures and ratified by congressional act of February 15, 1848.<sup>30</sup> Copies of the field notes of both lines are in the General Land Office records.<sup>31</sup>

The part of the west boundary south of Arkansas River was surveyed and marked in 1825, and that from Old Fort Smith to the southwest corner of Missouri in 1831.

A resurvey of the west boundary was commenced in 1857, but after the surveyors had run it 8 miles due south they were directed to return to Fort Smith and to retrace the line of the previous survey, which had been found to diverge to the west.<sup>32</sup>

A resurvey and re-marking of the entire west boundary was authorized in 1875.<sup>33</sup> This work, which was completed in 1877, showed that the lines from Old Fort Smith both southward and northward diverged to the west, thereby adding to the area of Arkansas more than 200 square miles, the boundary mark on Red River being 4 miles 16 chains west of a due south line from Old Fort Smith.<sup>34</sup> The Cherokee and Choctaw Indians were paid for the land of which they had thus been wrongfully deprived.<sup>35</sup>

#### TENNESSEE.

Tennessee was originally a part of North Carolina. In 1784 the Legislature of North Carolina passed an act of cession to the United States of its western counties, and although the act was soon afterward repealed the people of Greene, Sullivan, and Washington counties (now eastern Tennessee), believing themselves to be without proper government and inadequately defended against the Indians, revolted in 1785 and proceeded to organize an independent State to be called Frankland. A constitution was adopted, and a governor and a legislature were elected. It was planned to invite the inhabitants of adjoining areas now forming parts of Virginia, West Virginia, Ohio, Kentucky, Tennessee, and Alabama to join the movement and thus create a large State, but the continued opposition of North Carolina finally prevailed, and in 1788 North Carolina again gained control.<sup>36</sup>

<sup>30</sup> 9 Stat. L. 211.

<sup>31</sup> Missouri, vols. 362 and 363.

<sup>32</sup> 40th Cong., 2d sess., H. Ex. Doc. 133.

<sup>33</sup> 18 Stat. L. 476.

<sup>34</sup> 45th Cong., 3d sess., S. Repts., vol. 2, Rept. 714.

<sup>35</sup> Arkansas Hist. Assoc. Pubs., vol. 2, pp. 211-236.

<sup>36</sup> See Haywood, John, *The civil and political history of the State of Tennessee*, pp. 142-175, Knoxville, 1823.

North Carolina in 1790 again passed an act ceding her western lands to the United States. The cession was accepted by act of Congress approved on April 2 of that year, and a government was provided for in "An act for the government of the territory of the United States south of the Ohio River."<sup>37</sup> The boundaries described in the act of cession are substantially those of the State of Tennessee at the present day.<sup>38</sup> (See fig. 9.)

Tennessee was admitted to the Union as a State by act approved June 1, 1796. The act of admission defined it as "the whole of the territory ceded to the United States by the state of North Carolina."<sup>39</sup>

For the history of the eastern boundary, see North Carolina, pages 132-133; for the southern boundary, see Georgia, pages 138-139; Alabama, page 145; and Mississippi, page 147.

The middle of Mississippi River became the western boundary of this area by the treaty of peace of 1783.

Virginia and North Carolina, prior to the creation of the States of Kentucky and Tennessee, appointed commissioners—Messrs. Walker and Henderson—to run and mark their common boundary on the parallel of latitude  $36^{\circ} 30'$ . From a point on the top of the Cumberland Mountains, now the southeast corner of Kentucky, Walker ran and marked the line to a point on Tennessee River. This line, called Walker's line, was regarded for many years as the dividing line between Kentucky and Tennessee. It has since been ascertained, however, that Walker's line was about 3' north of latitude  $36^{\circ} 30'$ .

The Indian title to the land west of Tennessee River being extinguished by the treaty of 1819, the Legislature of Kentucky appointed Robert Alexander and Luke Munsell to ascertain the true point of latitude  $36^{\circ} 30'$  on the Mississippi and to run and mark a line east on that parallel, which was done as far east as the Tennessee.<sup>40</sup>

In 1820 commissioners were appointed by Kentucky and Tennessee, respectively, to settle the boundary. Their report was ratified and is as follows:<sup>41</sup>

The line of boundary and separation between the States of Kentucky and Tennessee shall be as follows, to wit: The line run by the Virginia commissioners, in the year 1779 and 1780, commonly called Walker's line, as the same is reputed, understood, and acted upon by the said States, their respec-

<sup>37</sup> 1 Stat. L. 123.

<sup>38</sup> There are excellent historical descriptions of the Kentucky boundaries in Carroll, J. D., *General statutes of Kentucky*, 3d ed., pp. 240-243, Louisville, 1903, and in Staunton, R. H., *Revised statutes of Kentucky*, vol. 1, pp. 211-220, Cincinnati, Ohio 1860.,

<sup>39</sup> 1 Stat. L. 491.

<sup>40</sup> Carroll, J. D., *General statutes of Kentucky*, 3d ed., pp. 240-243, 1903.

<sup>41</sup> Haywood, John, *op. cit.*, p. 485; see also Carroll, J. D., *op. cit.*, p. 240.



tive officers and citizens, from the southeastern corner of Kentucky to the Tennessee river; thence with and up said river to the point where the line of Alexander and Munsell, run by them in the last year under the authority of an act of the legislature of Kentucky entitled an act to run the boundary line between this state and the state of Tennessee, west of the Tennessee river, approved February the 8th, 1819, would cross said river; and thence with the said line of Alexander and Munsell to the termination thereof on the Mississippi river, below New Madrid.

In 1858-59 commissioners were appointed by Kentucky and Tennessee to rerun this line. The detailed report of the commission on the part of Tennessee, giving courses, bearings, milestones erected, and a map of the boundary, can be found in the State statutes.<sup>42</sup> The report of this commission on the part of Kentucky, with latitudes and a map of the line on a scale of 1:108,000, was printed at Frankfort by the State printer, in 1860, as a pamphlet of 98 octavo pages.

The line was run from the Mississippi eastward to the Tennessee, thence down that river to a point in approximate latitude  $36^{\circ} 40' 45''$ , and thence eastward, following the old Walker line wherever it could be identified, and where no marks were known it was run to points where the Walker line was reputed to be. At the southwest corner of Virginia is an offset from the Walker line, which had been adopted for the Kentucky boundary, to the compromise line agreed on by Virginia and Tennessee in 1803. The line was continued to the northeast corner of the State and thence about  $1\frac{1}{2}$  miles southwest to the North Carolina line, a total distance of about 432 miles.

There are many angles and offsets in the line east of Tennessee River that can scarcely be attributed to errors in surveying. It seems, however, that the commissioners who first ran the line between Virginia and North Carolina (the Byrd line) and the Tennessee north boundary (the Walker line) were allowed to change the lines at their discretion provided the commissioners for both States agreed; consequently they ran the line on an irregular course to accommodate influential inhabitants along the boundary who desired to remain in one State or the other.<sup>43</sup>

For a history of the boundary between Virginia and Tennessee see Virginia, pages 126-127.

An excellent article by Park Marshall on the boundary lines of Tennessee has been published by the State Geological Survey.<sup>44</sup>

<sup>42</sup> Tennessee Stat. 1871, vol. 1, pp. 223-243.

<sup>43</sup> For a comprehensive history of this line see Garrett, W. R., Northern boundary of Tennessee, a paper read before the Tennessee Historical Society, Mar. 18, 1884, Nashville, 1884.

<sup>44</sup> The resources of Tennessee, vol. 7, pp. 90-108, Nashville, 1918.

Geographic positions on the Tennessee-Virginia boundary have been determined by the United States Coast and Geodetic Survey as follows:

A stone post 24 inches long, set 20 inches in the ground, on Holston Mountain a short distance northwest of Sutherland, at latitude  $36^{\circ} 36' 51.2''$  and longitude  $81^{\circ} 49' 36.3''$ . This station is very near the State line if not on it. The observer who located it stated:

The sketch submitted with the report of the commissioners who ran out the State line in 1858 shows an offset of about  $1\frac{1}{2}$  miles between Bristol and this station. The tree marks are found on the straight line east of the offset point but are said not to be continuous; and blocks have been cut from some trees showing the age of 1802 or 1803 and have been crossed out. The only line marked through is that with this offset. Blocks with these erased marks can be had in Bristol, in the possession of Mr. Huffacre [1894].

I have found a stone post on this line in the valley of Beaver Dam Creek, about  $1\frac{1}{2}$  miles above the village of Damascus and about 2 miles east of this station. I traced the line from this stone west to the highest point it crosses on Holston Mountain, where the station is established, and found several trees marked by both commissioners (1802 or 1803 and 1858) easily recognized at this date. The line of 1802 or 1803 is called the "diamond line," from the method of marking always thus  $\therefore$ , while the marks of 1858 are always  $\ddot{\cdot}$ .

In Bristol, Tenn.-Va., latitude  $36^{\circ} 35' 41.6''$ , longitude  $82^{\circ} 10' 41.6''$ , the State line passes 15 feet south of the Baptist Church steeple.<sup>44a</sup>

On a ridge about 5 miles west of Bristol, latitude  $36^{\circ} 35' 42.1''$ , longitude  $82^{\circ} 15' 54.5''$ .

About 3 miles north of Kingsport, Tenn., latitude  $36^{\circ} 35' 39.9''$ , longitude  $82^{\circ} 35' 35.8''$ .

On Clinch Mountain, about 4 miles southeast of Fairview, Va., latitude  $36^{\circ} 35' 37.3''$ , longitude  $82^{\circ} 49' 49.4''$ .

On the crest of Powell Mountain, about 8 miles northeast of Se-dalia, Tenn., latitude  $36^{\circ} 35' 38.0''$ , longitude  $83^{\circ} 10' 32.3''$ .

About 3 miles south of Ewing, Va., latitude  $36^{\circ} 35' 50.50''$ , longitude  $83^{\circ} 27' 52.6''$ .

The following positions are on the Tennessee-Kentucky boundary:

At the southeast corner of Kentucky, about 2 miles southwest of Cumberland Gap, latitude  $36^{\circ} 34' 57.1''$ , longitude  $83^{\circ} 41' 28.1''$ .

Jellico, Tenn., an astronomic station, was established in the town of Jellico, at a point 516.3 feet south of the State line, latitude  $36^{\circ} 35' 03.2''$ , longitude  $84^{\circ} 07' 28.8''$ .

About 900 feet west of the town of Dukedom, Tenn., State line monument No. 8, latitude  $36^{\circ} 30' 09.7''$ , longitude  $88^{\circ} 43' 09.8''$ .<sup>45</sup>

<sup>44a</sup> See 190 U. S. 69 for report of commissioners and 190 U. S. 75 for reference to cession of north half of the main street in Bristol by Tennessee to Virginia, ratified by Congress in 1901.

<sup>45</sup> See U. S. Geol. Survey Bull. 496, for this position and others farther west.

A stone post near Mississippi River, latitude  $36^{\circ} 29' 51.1''$ , longitude  $89^{\circ} 29' 01.2''$ .<sup>46</sup>

#### KENTUCKY.

Kentucky was included in the original limits of Virginia (fig. 9) and was a part of Augusta County, which was formed in 1738. In 1769 Botetourt County was created from a portion of Augusta County; in 1772, Fincastle from Botetourt; in 1776, Kentucky from Fincastle. The boundaries of these counties are described by Hening.<sup>47</sup>

In 1789 Virginia passed an act giving her consent that the district of Kentucky be formed into a new State. Accordingly, by an act of Congress approved February 4, 1791, effective June 1, 1792,<sup>48</sup> Kentucky was admitted into the Union with substantially her present boundaries.

The cession by Virginia to the United States of the territory northwest of the Ohio, in 1784, made the north bank of that river the dividing line, and consequently it became the north boundary of the State of Kentucky, the exact line being fixed by the low-water stage of the river.<sup>49</sup> The western boundary, the middle of the Mississippi, was the line fixed by the treaty of peace in 1783.

For a history of the boundary between Kentucky and Virginia and West Virginia, see Virginia, pages 125-126; for the boundary between Kentucky and Tennessee, see Tennessee, pages 161-162.

A peculiar situation exists at the extreme southwest corner of Kentucky, where, owing to a double bend in Mississippi River, there is an area of about 10 square miles belonging to Kentucky that can not be reached from the rest of the State without passing through Missouri or Tennessee.

#### OHIO.

Ohio was the first State formed from the original "Territory northwest of the River Ohio," but there is considerable uncertainty as to the proper date to assign to its admission to the Union. The congressional enabling act, approved April 30, 1802,<sup>50</sup> contained certain provisos with which the constitution of the proposed State must comply. It seems evident, therefore, that the constitution as framed required the approval of Congress before it became effective.

<sup>46</sup> Mississippi River Commission Rept. for 1881, p. 35.

<sup>47</sup> Hening, W. W., The statutes at large, a collection of all laws of Virginia, vols. 1-9.

<sup>48</sup> 1 Stat. L. 189.

<sup>49</sup> See decisions by the United States Supreme Court, 5 Wheaton 374 (18 U. S. 667), 136 U. S. 479. In the former case, a tract of land on the north side of Ohio River was claimed by Kentucky, because at high water it became an island. It was said that "No land can be considered an island unless it is surrounded by water at all times. The same tract of land can not be sometimes in Kentucky and sometimes in Indiana, according to the rise and fall of the river. It must be always in the one State or the other."

<sup>50</sup> 2 Stat. L. 173.

The constitutional convention completed its labors November 29, 1802; the constitution was referred to Congress and first considered in the Senate in January, 1803. Apparently it complied with the provisos of the enabling act, for under date of February 19, 1803, an act was approved "to provide for the due execution of the laws of the United States within the State of Ohio,"<sup>51</sup> in which reference was made to the action of the convention, thus virtually approving the constitution as submitted, although it provided for a change in the boundary described in the enabling act. Of the three dates above given the last would seem the most appropriate to regard as the date of admission, if Congress had taken no further action upon the matter; but an act approved February 21, 1806,<sup>52</sup> appropriated money for the payment of salaries of the governor, secretary, and judges of the "late Territory" of Ohio from November 29, 1802, to "the first Tuesday in March, 1803" (March 1). It appears from this that March 1, 1803, was the date on which Congress assumed that Ohio statehood came into effect. In further confirmation of this conclusion it should be noted that the Territorial Delegate in Congress retained his seat until March 1, 1803, and the first general assembly of the State convened on the same date.<sup>53</sup>

The limits of the State as given in the enabling act are as follows:<sup>54</sup>

bounded on the east by the Pennsylvania line, on the south by the Ohio River, to the mouth of the Great Miami river, on the west by the line drawn due north from the mouth of the Great Miami, aforesaid, and on the north by an east and west line, drawn through the southerly extreme of Lake Michigan, running east after intersecting the due north line aforesaid, from the mouth of the Great Miami until it shall intersect Lake Erie or the territorial line, and thence with the same through Lake Erie to the Pennsylvania line, aforesaid: *Provided*, that Congress shall be at liberty at any time hereafter, either to attach all the territory lying east of the line to be drawn due north from the mouth of the Miami, aforesaid, to the territorial line, and north of an east and west line drawn through the southerly extreme of Lake Michigan, running east as aforesaid to Lake Erie, to the aforesaid State, or dispose of it otherwise, in conformity to the fifth article of compact between the original States, and the people and States to be formed in the territory northwest of the river Ohio.

In the constitution of Ohio, article 7, section 6, the boundaries are described in the same words used in the enabling act but with the following proviso:

*Provided always, and it is hereby fully understood and declared by this convention, that if the southerly bend or extreme of Lake Michigan should extend*

<sup>51</sup> 2 Stat. L. 201.

<sup>52</sup> 2 Stat. L. 350.

<sup>53</sup> For a full discussion of this question see Mag. Am. History, October, 1887, pp. 306-316. See also Tannehill, J. W., Ohio interrogation points, p. 9, Columbus, 1920.

<sup>54</sup> 2 Stat. L. 173.



so far south, that a line drawn due east from it should not intersect Lake Erie, or if it should intersect the said Lake Erie east of the mouth of the Miami River [now Maumee River] of the Lake, then, and in that case, with the assent of the Congress of the United States, the northern boundary of this State shall be established by, and extending to, a direct line running from the southern extremity of Lake Michigan to the most northerly cape of the Miami Bay, after intersecting the due north line from the mouth of the Great Miami River as aforesaid; thence northeast to the territorial line, and by the said territorial line to the Pennsylvania line.

The framers of the Ohio constitution had good reason for believing that the description of the northern boundary given in the enabling act was based on inaccurate maps<sup>55</sup> and that this description, if adhered to, would deprive the State of a large area that Congress intended it should have, and for this reason they inserted the proviso in the constitution. Ohio was admitted to the Union as a State without specific assent or rejection by Congress of this proviso.

In 1812 Congress authorized the survey of the line<sup>56</sup> as described in the enabling act of 1802, but the work was not undertaken until several years later, and then but little was accomplished.

Lines were run in 1817 by William Harris, under the direction of the surveyor general of Ohio, presumably by authority of the act of 1812, first a random or trial line due east from the southern extremity of Lake Michigan to the western Ohio line and another from the most northerly cape of Maumee Bay west and south to the due east line. Manuscript copies of the notes and plats of these lines are in the General Land Office. From the data thus obtained a true line was then run for the northern boundary of Ohio as described in the State constitution, on which 71 marks were established at mile intervals. This line is from 5 to 7 miles north of the due east line from the southern extremity of Lake Michigan. (See fig. 15.)

When news of this survey reached the Governor of Michigan it naturally called forth vigorous protests from him as well as from other residents of the Territory. After considerable fruitless discussion a committee was sent from Michigan to Washington to seek redress, with the result that an order was given to run the line as authorized by the act of 1812. This line was run in 1818. Congress neither confirmed nor rejected it. Ohio, as was to be expected, refused to accept it.

In order to have data for settling the dispute Congress in 1832<sup>57</sup> ordered the determination of latitude and longitude at important points on the two lines, and the positions of eight stations were found, but apparently no use was made of them. As time passed

<sup>55</sup> See Lake Michigan as shown on the Mitchell map (Pl. III, in pocket); also fig. 15; many other maps published prior to 1800 showed the lake in the same relative position.

<sup>56</sup> 2 Stat. L. 741.

<sup>57</sup> 4 Stat. L. 596.

the boundary disputes grew more bitter until a crisis was reached in February, 1835, when the Ohio Legislature passed a resolution declaring the northern line to be the true boundary of the State and ordering that the State's jurisdiction be extended to that line. Armed troops were assembled by both sides, and civil war seemed imminent. The President, Congress, and the courts were called on to settle the trouble, and a commission was sent from Washington in the hope of effecting a compromise.<sup>58</sup> Finally better judgment prevailed; Michigan was induced to suspend hostile actions, principally from the hope of statehood with increased territory on the north and a share in the allotment of public funds. Ohio on her part had every expectation of obtaining the coveted territory, and so this bloodless war came to an end.

Michigan Territory had for several years had a population large enough for admission to the Union as a State, but action was delayed because of the boundary dispute.

On June 15, 1836, an act was approved to establish the northern boundary of Ohio and admit Michigan as a State, provided the new State, by vote of a convention called for the purpose, accepted the southern boundary as thus described:<sup>59</sup>

the northern boundary line of the State of Ohio shall be established at and shall be a direct line drawn from the southern extremity of Lake Michigan, to the most northerly cape of the Maumee (Miami) Bay, after that line, so drawn, shall intersect the eastern boundary line of the State of Indiana; and from the said north cape of the said bay, northeast to the boundary line between the United States and the Province of Upper Canada, in Lake Erie; and thence, with the said last-mentioned line, to its intersection with the western line of the State of Pennsylvania.

The line as above established was confirmed by act of June 23, 1836.<sup>60</sup>

The first convention voted against the acceptance of this boundary, but another one voted for its acceptance in December, 1836. The line as surveyed and marked in 1817 thus became the northern boundary of Ohio.

Parts of the line as marked in 1817 were retraced and re-marked in 1837 and 1842 by the General Land Office.

In 1915 the legislatures of the two States authorized the resurvey and monumenting of the line. All existing marks of the previous surveys were to be recovered, and where none existed straight lines were to be run between known points. The survey was commenced at the northwest corner of the State of Ohio, which, being in a public road, was marked by a large granite block set 12 inches below

<sup>58</sup> See Way, W. V., *The facts and historical events of the Toledo war of 1835*, Toledo, 1869.

<sup>59</sup> 5 Stat. L. 49.

<sup>60</sup> 5 Stat. L. 56.

the road surface and by a granite "witness" post 12 by 12 inches in section and  $5\frac{1}{2}$  feet long set on the line 20 feet east of the corner. The position of this corner, which is on the Indiana line, is latitude  $41^{\circ} 41' 46.20''$ , longitude  $84^{\circ} 48' 21.10''$ . The line is somewhat irregular, sections of it ranging from N.  $85^{\circ} 27'$  E. to N.  $89^{\circ} 41'$  E., with a mean of about N.  $87^{\circ} 55'$  E. true bearing.

The last post set on the line (No. 71) is about 900 feet from the shore of Maumee Bay, and its position is latitude  $41^{\circ} 43' 56.63''$ , longitude  $83^{\circ} 27' 16.97''$ . The position of each of the other posts and the distance and bearing from each to the next are in the Ohio State report of 1916, which gives a historical sketch of the line.<sup>61</sup>

The western boundary of Ohio is that fixed by the enabling act—a line due north from the mouth of Miami River. It was surveyed and marked in 1799 from the south end northward to Fort Recovery as the first principal meridian of the General Land Office. (See fig. 14.) This line was extended to the present northwest corner of the State in 1817.

The south boundary is the low-water line on the north bank of the Ohio.

For a description of the east boundary see Pennsylvania, page 109.

### INDIANA.

By the act approved May 7, 1800, to take effect on and after July 4 of that year, the "Territory northwest of the River Ohio" was divided into two parts, the eastern part to retain the old name, the western part to become the Territory of Indiana. (See fig. 14.) The description of the boundary line between these two Territories is given in the act as follows:<sup>62</sup>

That from and after the fourth day of July next, all that part of the territory of the United States northwest of the Ohio river, which lies to the westward of a line beginning at the Ohio, opposite to the mouth of Kentucky river, and running thence to Fort Recovery, and thence north until it shall intersect the territorial line between the United States and Canada, shall, for the purpose of temporary government, constitute a separate Territory, and be called Indiana Territory.

\* \* \* \* \*

That whenever that part of the territory of the United States which lies to the eastward of a line beginning at the mouth of the Great Miami river, and running thence due north to the territorial line between the United States and Canada, shall be erected into an independent state, and admitted into the Union on an equal footing with the original states, thenceforth said line shall

<sup>61</sup> Sherman, C. E., The Ohio-Michigan boundary. See also Soule, A. M., The southern and western boundaries of Michigan: Michigan Pioneer and Hist. Coll., vol. 27, pp. 346-378, Lansing, 1897, which gives an excellent history of the boundary dispute with many references; and 24th Cong., 1st sess., S. Doc. 6, which gives a history of the line down to 1835.

<sup>62</sup> 2 Stat. L. 58.



FIGURE 14.—Historical diagram of Indiana.

become and remain permanently the boundary line between such State and the Indiana Territory, anything in this act contained to the contrary notwithstanding.

In the Ohio enabling act provision was made for the addition to Indiana Territory of a triangular strip of land between Ohio and that Territory described as follows:<sup>63</sup>

All that part of the territory of the United States northwest of the river Ohio heretofore included in the eastern division of said territory, and not in-

<sup>63</sup> 2 Stat. L. 174.



cluded within the boundary herein prescribed for the said state, is hereby attached to and made a part of the Indiana territory.

This clause added to Indiana also that part of the Territory northwest of the River Ohio north of the limits of the new State and east of Indiana.

On June 30, 1805, by an act approved January 11, 1805,<sup>64</sup> the northeastern part of Indiana Territory was cut off and organized as Michigan Territory. For the divisional line between the two Territories see Michigan, pages 172-174.

On March 1, 1809, by an act approved February 3, 1809, Indiana Territory was again divided, and the western part was organized as Illinois Territory.<sup>65</sup> For a description of the line separating these two Territories see Illinois, page 171.

On December 11, 1816, Indiana was admitted as a State with the limits as given in the following extract from the enabling act, approved April 19, 1816, which have not since been changed:<sup>66</sup>

the said State shall consist of all the territory included within the following boundaries, to wit: Bounded on the east, by the meridian line which forms the western boundary of the State of Ohio; on the South, by the river Ohio, from the mouth of the Great Miami River, to the mouth of the River Wabash; on the west, by a line drawn along the middle of the Wabash, from its mouth to a point where a due north line drawn from the town of Vincennes, would last touch the northwestern shore of the said river; and from thence by a due north line, until the same shall intersect an east and west line drawn through a point ten miles north of the southern extreme of lake Michigan; on the north by the said east and west line until the same shall intersect the first-mentioned meridian line which forms the western boundary of the state of Ohio.

A provision in this act required that the boundaries as therein described be ratified by a constitutional convention to be called, otherwise they would be fixed as described in the ordinance of 1787. By ratifying them, June 29, 1816, Indiana missed an opportunity for including in its limits a considerably larger territory than it now has. There was a similar proviso in the enabling act of 1818 for Illinois.

The north boundary of Indiana is parallel to the line which runs due east from the southern extremity of Lake Michigan and 10 miles north thereof.<sup>67</sup> Its approximate latitude as determined in 1827 is  $41^{\circ} 47' 43''$ , but recent measurements by the Geological Survey near its east end give the latitude as  $41^{\circ} 45' 33''$ .<sup>68</sup> The survey was made in accordance with the act of Congress of March 2, 1827.<sup>69</sup> The original plat of the survey was filed in the surveyor general's office in Chillicothe, Ohio. There is a copy in the General Land Office.

<sup>64</sup> 2 Stat. L. 309.

<sup>65</sup> 2 Stat. L. 514.

<sup>66</sup> 3 Stat. L. 289.

<sup>67</sup> 5 Stat. L. 57.

<sup>68</sup> U. S. Geol. Survey Bull. 644, p. 305, 1916.

<sup>69</sup> 4 Stat. L. 237.

Parts of this line were retraced in 1828, 1834, 1839, and 1842 by the General Land Office.

For a description of the east boundary see Ohio, page 165. For a description of the west boundary, see Illinois, below.

The line from Ohio River running northeastward to Fort Recovery was the boundary of an Indian cession established by the "Greenville treaty"<sup>70</sup> of 1795.

The Indiana Territorial boundary from Fort Recovery northward was about  $1\frac{1}{2}$  miles east of the line fixed by the enabling act of 1816 for the State of Indiana.

The southern boundary is the low-water line on the north side of Ohio River.

#### ILLINOIS.

Illinois Territory, originally part of the Territory northwest of the River Ohio and subsequently a part of Indiana Territory, was organized by act of February 3, 1809,<sup>71</sup> effective March 1, 1809. The following clause from the act separating it from Indiana Territory defines its boundary<sup>71</sup> (see fig. 14):

from and after the first day of March next, all that part of the Indiana territory which lies west of the Wabash river, and a direct line drawn from the said Wabash river and Post Vincennes, due north to the territorial line between the United States and Canada, shall, for the purpose of temporary government, constitute a separate territory, and be called Illinois.

Illinois was admitted as a State with its present boundaries by resolution approved December 3, 1818.<sup>72</sup> The enabling act defines these boundaries as follows:<sup>73</sup>

the said State shall consist of all the territory included within the following boundaries, to wit: Beginning at the mouth of the Wabash river; thence up the same and with the line of Indiana, to the northwest corner of said state; thence, east with the line of the same state, to the middle of Lake Michigan; thence north along the middle of said lake to the north latitude forty-two degrees thirty minutes; thence west to the middle of the Mississippi river; and thence down along the middle of that river to its confluence with the Ohio River; and thence up the latter river along its northwestern shore to the beginning:

The eastern boundary of Illinois was ordered surveyed in 1810 in connection with the work of the General Land Office. In 1821 the Legislatures of the States of Indiana and Illinois ordered a survey of their common boundary. A commissioner representing each State was appointed, and the line was run and marked with wooden posts the same year from a point "opisit the Vincennes Hotell on the

<sup>70</sup> Bur. Am. Ethnology Eighteenth Ann. Rept., pt. 2, p. 654, Washington, 1899.

<sup>71</sup> 2 Stat. L. 514.

<sup>72</sup> 3 Stat. L. 536.

<sup>73</sup> 3 Stat. L. 429.

N. W. Bank of Wabash river" northward to Lake Michigan. There is a signed copy of the field notes in the Indiana State library at Indianapolis.

The Geological Survey determined the position of a large stone post on the north bank of the Wabash where the State boundary line leaves the river as latitude  $39^{\circ} 20' 57.6''$ , longitude  $87^{\circ} 31' 52.9''$ .

The northern boundary was surveyed and marked in 1831-32 by commissioners representing the United States and Illinois. The position on the east side of the Mississippi of a point in latitude  $42^{\circ} 30'$  having been found by observation, a stone about 7 feet long and of an estimated weight of 5 tons was set in the ground on the high-water line. The stone was marked "Illinois" on its south side and "Michigan latitude  $42^{\circ} 30' N.$ " on its north side. (The Mississippi River Commission later located this stone or one on the State line near it and determined its latitude as  $42^{\circ} 30' 29.3''$ .) From this point the line was run due east to the fourth principal meridian of the General Land Office, where a large mound of earth was erected, and was continued east to Rock River. Observations then taken showed that the line was  $54''$  too far north. An offset was taken the proper distance to the south, and a post was set on the east bank of the river, 81 miles 31 chains 9 links from the Mississippi, from which the line was extended (with frequent astronomic observations) to Lake Michigan, where an oak post 12 inches square and 9 feet long was set 5 feet in the ground at a point about 1 chain from the lake shore. Recent observations show that this end of the marked line is about half a mile south of the parallel of  $42^{\circ} 30'$ . The total length of the boundary as measured is 144 miles 48 chains 80 links. A post was also set on the east bank of Fox River 125 miles 9 chains 10 links from the initial point. There is a signed copy of the report and notes in the files of the General Land Office.<sup>74</sup> The line west of Rock River was later rerun and placed in a corrected position.

#### MICHIGAN.

Michigan was organized as a Territory June 30, 1805, from the northeastern part of Indiana Territory. (See fig. 15.)

The following clause from the act dividing Indiana Territory defines its limits:<sup>75</sup>

from and after the thirtieth day of June next, all that part of the Indiana territory which lies north of a line drawn east from the southerly bend or extreme of Lake Michigan, until it shall intersect Lake Erie, and east of a line drawn from the said southerly bend through the middle of said lake to its northern extremity, and thence due north to the northern boundary of the

<sup>74</sup> Boundaries, No. 22. See U. S. Geol. Survey Bulls. 310, 551, and 644 for latitude and longitude of points on this line.

<sup>75</sup> 2 Stat. L. 309.





United States, shall, for the purpose of temporary government, constitute a separate territory, and be called Michigan.

The enabling act for Illinois, passed in 1818, contained a provision transferring to the Territory of Michigan the portion of the Territory of Illinois not included in the State of that name. The following is the text of the clause referred to:<sup>76</sup>

all that part of the territory of the United States lying north of the State of Indiana, and which was included in the former Indiana territory, together with that part of the Illinois territory which is situated north of and not included within the boundaries prescribed by this act, to the state thereby authorized to be formed, shall be, and hereby is, attached to and made a part of the Michigan territory.

On June 28, 1834, an act was passed extending the limits of the Territory of Michigan to Missouri River. The clause of the act relating to this area is as follows:<sup>77</sup>

all that part of the territory of the United States bounded on the east by the Mississippi River, on the south by the state of Missouri, and a line drawn due west from the northwest corner of said state to the Missouri river; on the southwest and west by the Missouri river and the White Earth river, falling into the same; and on the north, by the northern boundary of the United States, shall be, and hereby is, for the purpose of temporary government, attached to and made a part of, the territory of Michigan.

Wisconsin Territory was formed in 1836 from the western part of Michigan Territory; for a description of the dividing line see Wisconsin, page 175.

Michigan was admitted to the Union on January 26, 1837,<sup>78</sup> with the proviso and boundaries given in the enabling act as follows:<sup>79</sup>

*Provided always*, and this admission is upon the express condition, that the said State shall consist of and have jurisdiction over all the territory included within the following boundaries, and over none other, to wit:

Beginning at the point where the above-described northern boundary of the State of Ohio intersects the eastern boundary of the State of Indiana, and running thence with the said boundary line of Ohio, as described in the first section of this act, until it intersects the boundary line between the United States and Canada in Lake Erie; thence with the said boundary line between the United States and Canada, through the Detroit river, Lake Huron, and Lake Superior, to a point where the said line last touches Lake Superior; thence in a direct line through Lake Superior to the mouth of the Montreal river; thence through the middle of the main channel of the said river Montreal, to the middle of the Lake of the Desert; thence in a direct line to the nearest headwater of the Menomonie river; thence through the middle of that fork of the said river first touched by the said line, to the main channel of the said Menomonie river; thence down the center of the main channel of the same, to the center of the most usual ship channel of the Green bay of Lake Michigan; thence through the center of the most usual ship channel of the said bay to

<sup>76</sup> 3 Stat. L. 431.

<sup>77</sup> 4 Stat. L. 701.

<sup>78</sup> 5 Stat. L. 144.

<sup>79</sup> 5 Stat. L. 49.

the middle of Lake Michigan; thence through the middle of Lake Michigan, to the northern boundary of the State of Indiana, as that line was established by the act of Congress of the nineteenth of April, eighteen hundred and sixteen; thence due east, with the north boundary line of the said State of Indiana, to the northeast corner thereof; and thence, south, with the east boundary line of Indiana to the place of beginning.

The above boundaries remain unchanged.

#### WISCONSIN.<sup>80</sup>

Wisconsin was organized as a Territory July 3, 1836, and admitted as a State May 29, 1848.

As originally constituted its area comprised all that part of the former Territory of Michigan which lay outside of the present limits of the State of Michigan. (See fig. 15.) The limits are defined in the act for its organization as follows:<sup>81</sup>

Bounded on the east, by a line drawn from the northeast corner of the State of Illinois, through the middle of Lake Michigan, to a point in the middle of said lake, and opposite the main channel of Green Bay; and through said channel and Green Bay to the mouth of the Menomonic river; thence through the middle of the main channel of said river, to that head of said river nearest to the Lake of the Desert; thence in a direct line to the middle of said lake; thence through the middle of the main channel of the Montreal river, to its mouth; thence with a direct line across Lake Superior to where the territorial line of the United States last touches said lake northwest; thence on the north with the said territorial line to the White-earth river; on the west, by a line from the said boundary line following down the middle of the main channel of White-earth river to the Missouri river, and down the middle of the main channel of the Missouri river to a point due west from the northwest corner of the State of Missouri; and on the south, from said point, due east to the northwest corner of the State of Missouri; and thence with the boundaries of the States of Missouri and Illinois, as already fixed by acts of Congress.

In 1838 all that part of the territory lying west of the Mississippi and a line drawn due north from its source to the international boundary—that is, all that part which was originally comprised in the Louisiana Purchase and the Red River drainage basin south of the forty-ninth parallel—was organized as the Territory of Iowa. (See Iowa, p. 179.)

When the Territory was organized it was supposed that there was a connected water-boundary line between Michigan and Wisconsin from Green Bay to Lake Superior. Congress in 1838 ordered the running and marking of this boundary,<sup>82</sup> but it was soon discovered that the line could not be run as described, for the head of Montreal River is more than 50 miles from the Lake of the Desert, which was

<sup>80</sup> For a general description of the boundaries of Wisconsin and a historical sketch of the acts by which they were fixed see Thwaites, R. G., *Coll. of the Wisconsin State Hist. Soc.*, vol. 11, pp. 451–501, Madison, 1888.

<sup>81</sup> 5 Stat. L. 11.

<sup>82</sup> 5 Stat. L. 244.

supposed to be its source. It was therefore recommended that the boundary location be changed to the position later described in the Wisconsin enabling act of 1846<sup>83</sup> and in greater detail in the Michigan constitution of 1850, which reads as follows:<sup>84</sup>

through Lake Superior to the mouth of the Montreal river; thence through the middle of the main channel of the said river Montreal to the head waters thereof; thence in a direct line to the center of the channel between Middle and South islands in the Lake of the Desert; thence in a direct line to the southern shore of Lake Brule; thence along said southern shore and down the river Brule to the main channel of the Menominee river; thence down the center of the main channel of the same to the center of the most usual ship channel of the Green Bay of Lake Michigan.

The straight parts of the boundary were surveyed and marked, in 1847, from a point where Balsam River and Pine River unite to form the Montreal, thence S. 74° 27' E. to the Lake of the Desert, a distance of 50 miles 67 chains 6 links. The south part of the line begins at the lower end of Lake Brule and runs N. 59° 38' W. for 13 miles 37 chains 66 links to an intersection with the former line in the Lake of the Desert.<sup>85</sup>

On March 3, 1847, a supplementary act for the admission of Wisconsin was passed by Congress, in which the western boundary of the proposed State was changed as follows:<sup>86</sup>

That the assent of Congress is hereby given to the change of boundary proposed in the first article of said constitution, to wit: leaving the boundary line prescribed in the act of Congress entitled "An Act to enable the People of Wisconsin Territory to form a Constitution and State Government, and for the Admission of such State into the Union," at the first rapids in the river St. Louis; thence in a direct line southwardly to a point fifteen miles east of the most easterly point of Lake St. Croix; thence due south to the main channel of the Mississippi River or Lake Pepin; thence down the said main channel, as prescribed in said act.

The first constitution submitted under the act of 1846 was rejected by popular vote. A second constitution, dated February 2, 1848, was accepted by a majority vote; in it the boundaries are as described in the enabling act of August 6, 1846. Congress accepted this constitution and by act approved May 29, 1848,<sup>87</sup> admitted Wisconsin as a State.

The boundary between this State and Minnesota from St. Louis River to St. Croix River was surveyed and marked in 1852 under the General Land Office.

For the southern boundary see Illinois, page 171.

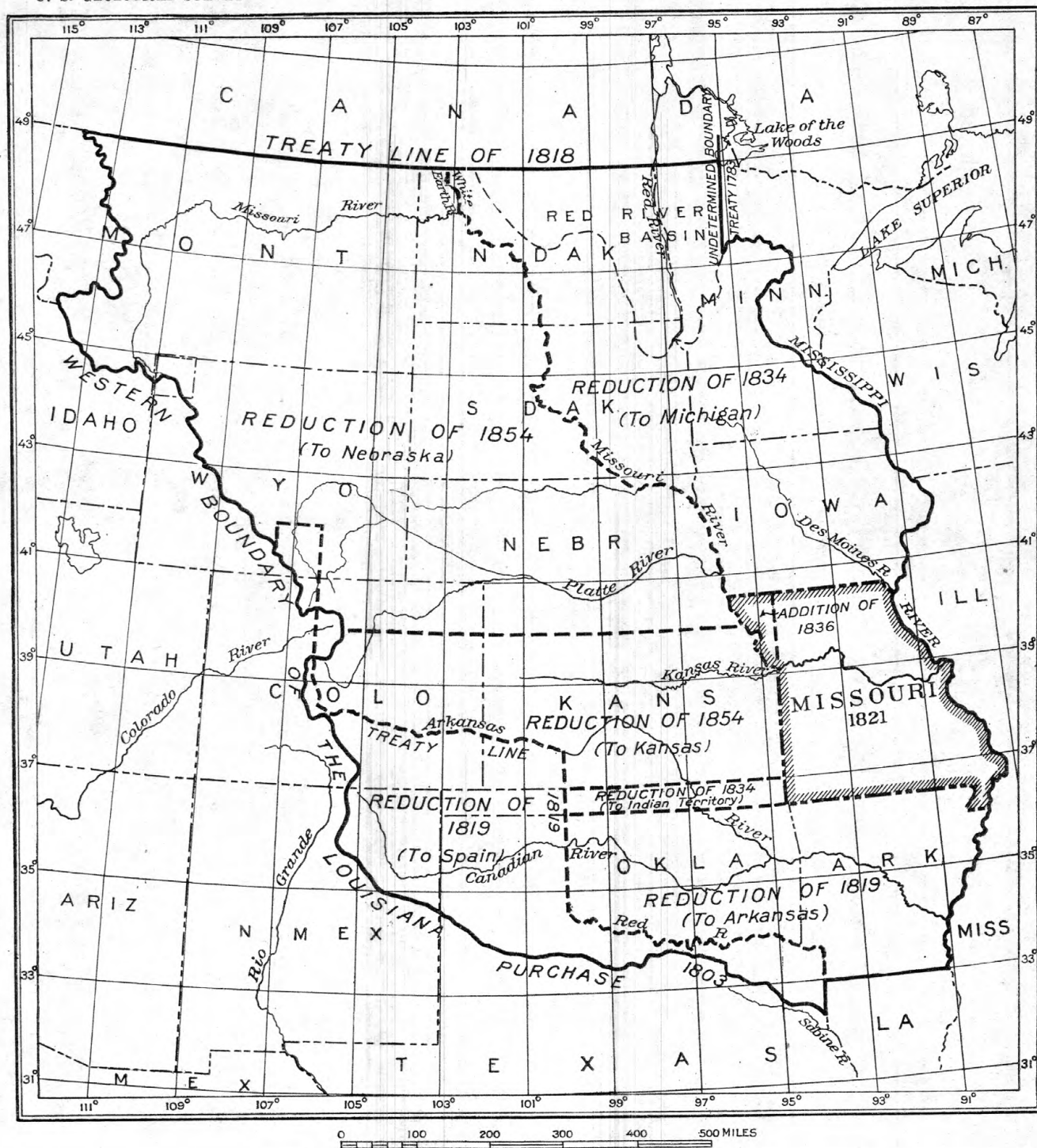
<sup>83</sup> 9 Stat. L. 56-57.

<sup>84</sup> Thorpe, F. N., *op. cit.*, vol. 4, p. 1945.

<sup>85</sup> Consult General Land Office files, Boundaries, No. 39, 1 and 2.

<sup>86</sup> 9 Stat. L. 178.

<sup>87</sup> 9 Stat. L. 233.



HISTORICAL DIAGRAM OF MISSOURI.



## MISSOURI.

The name of the Territory of Louisiana was changed in 1812<sup>88</sup> to Missouri. At that time the Territory included all the original Louisiana Purchase, except the State of Louisiana. (See Pl. VII.)

Missouri was declared a State on August 10, 1821, by presidential proclamation, under authority of the joint resolution of Congress of March 2, 1821,<sup>89</sup> with boundaries as defined in the enabling act of March 6, 1820,<sup>90</sup> as follows:

Beginning in the middle of the Mississippi river, on the parallel of thirty-six degrees of north latitude; thence west along that parallel of latitude, to the St. Francois river; thence up, and following the course of that river, in the middle of the main channel thereof, to the parallel of latitude of thirty-six degrees and thirty minutes; thence west, along the same, to a point where the said parallel is intersected by a meridian line passing through the middle of the mouth of the Kansas river, where the same empties into the Missouri river, thence from the point aforesaid north, along the said meridian line, to the intersection of the parallel of latitude which passes through the rapids of the river Des Moines, making the said line to correspond with the Indian boundary line; thence east from the point of intersection last aforesaid, along the said parallel of latitude, to the middle of the channel of the main fork of the said river Des Moines; thence down and along the middle of the main channel of the said river Des Moines, to the mouth of the same, where it empties into the Mississippi River; thence due east to the middle of the main channel of the Mississippi river; thence down, and following the course of the Mississippi river, in the middle of the main channel thereof, to the place of beginning.

The peculiar jog or "panhandle" at the southeast corner of the State, between Mississippi and St. Francis rivers, is said to be the result of efforts of a prominent property owner who lived south of the parallel of 36° 30' to have his plantation included in the new State.<sup>91</sup>

In 1836 the boundaries were extended on the northwest to Missouri River, as described in the following act of the legislature amendatory to the constitution of 1820:<sup>92</sup>

That the boundary of the State be so altered and extended as to include all that tract of land lying on the north side of the Missouri River and west of the present boundary of this State, so that the same shall be bounded on the south by the middle of the main channel of the Missouri River and on the north by the present northern boundary line of the State, as established by the constitution, when the same is continued in a right line to the west, or to include so much of said tract of land as Congress may assent.

This was ratified by Congress on June 7, 1836, and was declared in effect by presidential proclamation of March 28, 1837. The following is an extract from the act:<sup>93</sup>

<sup>88</sup> 2 Stat. L. 743.

<sup>89</sup> 3 Stat. L. 645, 797.

<sup>90</sup> 3 Stat. L. 545.

<sup>91</sup> Violette, E. M., *A history of Missouri*, p. 111, New York, 1918.

<sup>92</sup> Thorpe, F. N., *op. cit.*, vol. 4, p. 2170.

<sup>93</sup> 5 Stat. L. 34.

That when the Indian title to all the lands lying between the State of Missouri and the Missouri river shall be extinguished, the jurisdiction over said lands shall be hereby ceded to the State of Missouri, and the western boundary of said State shall be then extended to the Missouri river.

The north boundary of Missouri was surveyed and marked in part in 1816 and the remainder in 1850 under the General Land Office.<sup>94</sup>

The Territory remaining after the formation of the State bore the name of Missouri for many years thereafter. In 1834 the part north of the State of Missouri and east of Missouri and White Earth rivers was annexed to the Territory of Michigan. (For further history of this portion, see Michigan, pp. 172-174; Iowa, p. 179; Minnesota, p. 182; and Dakota, p. 183.) In 1854 Kansas and Nebraska Territories were formed, absorbing the remainder. (See Kansas, p. 190, and Nebraska, p. 186.)

The following are the boundaries of Missouri as at present established by statute: The east boundary is the mid-channel of the Mississippi from the mouth of the Des Moines to its point of intersection with the thirty-sixth parallel of latitude; the south boundary begins at the latter point and runs west on the parallel of 36 degrees of latitude to St. Francis River, thence up the mid-channel of that river to the parallel of latitude 36° 30', thence west on that parallel to its intersection by a meridian passing through the middle of the mouth of Kansas River; the west boundary is the last-mentioned meridian as far north as the mouth of Kansas River, thence it follows northwestward the mid-channel of Missouri River to the parallel of latitude passing through the rapids of the Des Moines River, which is approximately the parallel of 40° 35'; the north boundary is the last-mentioned parallel as far east as its point of intersection with Des Moines River, whence it follows the mid-channel of Des Moines River southward to its mouth.

For the survey of the south boundary see Arkansas, pages 159-160, and for the north boundary see Iowa, pages 180-181.

The west boundary of Missouri south of the mouth of Kansas River was surveyed in 1823, and a large stone post was set to mark the southwest corner of the State, at a point which sextant observations showed to be in latitude 36° 30'. This position as determined by the Geological Survey in 1906 is latitude 36° 29' 58.0'', longitude 94° 37' 02.9''.<sup>95</sup> The 1823 survey of the south boundary of the State was begun at this stone. In 1845 a mound of earth having

<sup>94</sup> Nearly all the boundaries of States west of the Mississippi were surveyed under the direction of the General Land Office, most of them by contract surveyors. The field notes and plats for these surveys have been cataloged and are filed in Division L of the General Land Office, where they can be consulted by anyone wishing full details for any line. Copies of the notes and plats for many States have been filed with the surveyors general of the several States.

<sup>95</sup> U. S. Geol. Survey Bull. 440, p. 488, 1910.

a 10-foot base and 5 feet high was placed at a point 4.83 chains farther south.

The west boundary of the State was resurveyed and re-marked in 1844-45.

A dispute concerning the river boundary between Missouri and Nebraska was settled in 1904 by the Supreme Court,<sup>96</sup> which reaffirmed the old rule that a sudden change in the course of a river does not affect a boundary line.

#### IOWA.

Iowa was organized as a Territory on July 3, 1838, from a portion of Wisconsin Territory. (See Pl. VII and fig. 15.) The limits were defined as follows in the act creating it:<sup>97</sup>

all that part of the present Territory of Wisconsin which lies west of the Mississippi river, and west of a line drawn due north from the headwaters or sources of the Mississippi to the Territorial line.

The approximate position of the outlet of Lake Itasca, which is generally accepted as the source of the Mississippi (see footnote, p. 25), is latitude  $47^{\circ} 14\frac{1}{2}'$ , longitude  $95^{\circ} 13'$ . The river runs northwestward for about 6 miles before it turns east. The north and south boundary line across the western part of the Lake of the Woods is in longitude  $95^{\circ} 09' 11.6''$  (p. 12).

The lawmakers in Congress in writing the act creating the Territory of Iowa evidently had in mind their troubles over the Ohio-Michigan boundary, and to avoid any future question as to the power of Congress they reserved the right to divide the new Territory into two or more Territories or to attach any part of it to any other State or Territory.

The following clause from an act passed in 1839 is supplementary to the act above quoted:<sup>98</sup>

That the middle or center of the main channel of the river Mississippi shall be deemed, and is hereby declared, to be the eastern boundary line of the Territory of Iowa, so far or to such extent as the said Territory is bounded eastwardly by or upon said river.

On March 3, 1845, an act was approved for the admission of Iowa to the Union as a State, but the act required that the assent of the people of Iowa be given to it by popular vote. In this act the boundaries were given as follows:<sup>99</sup>

That the following shall be the boundaries of the said State of Iowa, to wit: Beginning at the mouth of the Des Moines river, at the middle of the Mississippi, thence by the middle of the channel of that river to a parallel of latitude passing through the mouth of the Mankato or Blue-Earth river [latitude

<sup>96</sup> 196 U. S. 23 and 197 U. S. 577.

<sup>97</sup> 5 Stat. L. 235.

<sup>98</sup> 5 Stat. L. 357.

<sup>99</sup> 5 Stat. L. 742.

44° 10'], thence west along the said parallel of latitude to a point where it is intersected by a meridian line, seventeen degrees and thirty minutes west of the meridian of Washington city, thence due south to the northern boundary line of the State of Missouri, thence eastwardly following that boundary to the point at which the same intersects the Des Moines river, thence by the middle of the channel of that river to the place of beginning.

These boundaries were not acceptable to the people and by a popular vote were rejected.

Another constitutional convention was held in May, 1846, and Congress passed an act, approved August 4, 1846, fixing the boundaries in accordance with the wishes of the people and described as follows:<sup>1</sup>

Beginning in the middle of the main channel of the Mississippi River at point due east of the middle of the mouth of the main channel of the Des Moines River; thence up the middle of the main channel of the said Des Moines River to a point on said river where the northern boundary line of the State of Missouri, as established by the constitution of that State, adopted June twelfth, eighteen hundred and twenty, crosses the said middle of the main channel of the said Des Moines River; thence westwardly along the said northern boundary line of the State of Missouri, as established at the time aforesaid, until an extension of said line intersect the middle of the main channel of the Missouri River, thence up the middle of the main channel of the said Missouri River, to a point opposite the middle of the main channel of the Big Sioux River, according to Nicollet's map; thence up the main channel of the said Big Sioux River, according to said map, until it is intersected by the parallel of forty-three degrees and thirty minutes north latitude; thence east along said parallel of forty-three degrees and thirty minutes, until said parallel intersect the middle of the main channel of the Mississippi River; thence down the middle of the main channel of said Mississippi River to the place of beginning.

Iowa was finally declared admitted to full statehood by act of December 28, 1846.<sup>2</sup>

The admission of Iowa appears to have left a large area to the north and west unattached, which so remained until Minnesota Territory was organized, in 1849.

The act of August 4, 1846, directed that a long-standing dispute between Missouri and Iowa Territory regarding their common boundary be referred to the United States Supreme Court for adjudication. The area claimed by both was a strip of land about 10 miles wide and 200 miles long, north of the present boundary. Missouri maintained that the clause in that State's enabling act, "the rapids of the river Des Moines," referred to rapids in the river of that name and not to rapids of a similar name in the Mississippi, also that the Indian boundary line run and marked in 1816 by authority of the United States, known as the Sullivan line, was erroneously

<sup>1</sup> 9 Stat. L. 52.

<sup>2</sup> 9 Stat. L. 117.



established. A line claimed by Missouri was run by J. C. Brown in 1837 by order of the State legislature.

The United States Supreme Court decided in 1849 that the Sullivan line of 1816 is the correct boundary and ordered that it be resurveyed. The report of the commissioners appointed by the court to re-mark the line was accepted in 1851.<sup>4</sup>

So many of the marks on this line as established in 1850 had become lost or destroyed that the United States Supreme Court in 1896 ordered that certain parts be reestablished, especially those between mileposts 50 and 55.<sup>5</sup> Accordingly 20 miles of line was resurveyed by officers of the United States Coast and Geodetic Survey in 1896, and durable monuments of granite or iron were established thereon.<sup>6</sup> The geographic position of milepost No. 40 was determined as latitude  $40^{\circ} 34.4'$ , longitude  $95^{\circ} 51'$ , and that of No. 60 as latitude  $40^{\circ} 34.6'$ , longitude  $93^{\circ} 28'$ .

The survey of the north boundary of Iowa on the parallel of  $43^{\circ} 30'$ , authorized by congressional act of March 3, 1849, was completed in 1852. The position for each end of the line and for several intermediate points was determined astronomically.

This is the first State thus far noted having a boundary referred to the Washington meridian. Congress by act approved September 28, 1850,<sup>7</sup> ordered:

That hereafter the meridian of the observatory at Washington shall be adopted and used as the American meridian for all astronomic purposes and \* \* \* Greenwich for nautical purposes.

This order was repealed August 22, 1912.<sup>8</sup>

The meridian passing through the center of the dome of the old Naval Observatory at Washington, on the grounds now occupied by the Naval Hospital, was the line referred to, which is 5 hours 8 minutes 12.15 seconds or  $77^{\circ} 03' 02.3''$  west of Greenwich. There is therefore a difference of  $03' 02.3''$  of longitude between even degrees of the two meridians, Washington and Greenwich. The linear value of this interval varies with the latitude: For southern Kansas (latitude  $37^{\circ}$ ) it is 2.8 miles; for southern New Mexico it is 3 miles; for northern Montana it is 2.3 miles. The center of the clock house of the present Naval Observatory is  $77^{\circ} 03' 56.7''$  (astronomic) west of Greenwich.

<sup>4</sup> For a full discussion of the case see 7 Howard 660 (17 U. S. 337).

<sup>5</sup> 10 Howard 1 (18 U. S. 294).

<sup>6</sup> 160 U. S. 688.

<sup>7</sup> For a full report, which contains extracts from notes of previous surveys, see 165 U. S. 118, also U. S. Coast and Geodetic Survey Rept. for 1896, p. 51.

<sup>8</sup> 9 Stat. L. 515.

<sup>9</sup> 37 Stat. L. 342.

## MINNESOTA.

The Territory of Minnesota was organized on March 3, 1849. It comprised the portion of the former Territory of Iowa outside the limits of the present State of Iowa and extended east to the west boundary line of Wisconsin. (See fig. 15.) The terms of the act creating this Territory, so far as they relate to its boundary, are as follows:<sup>9</sup>

all that part of the territory of the United States which lies within the following limits, to wit: Beginning in the Mississippi River, at the point where the line of forty-three degrees and thirty minutes of north latitude crosses the same; thence running due west on said line, which is the northern boundary of the State of Iowa, to the northwest corner of the said State of Iowa; thence southerly along the western boundary of said State to the point where said boundary strikes the Missouri River; thence up the middle of the main channel of the Missouri River to the mouth of the White-earth river; thence up the middle of the main channel of the White-earth River to the boundary line between the possessions of the United States and Great Britain; thence east and south of east along the boundary line between the possessions of the United States and Great Britain to Lake Superior; thence in a straight line to the northernmost point of the State of Wisconsin in Lake Superior; thence along the western boundary line of said State of Wisconsin to the Mississippi River; thence down the main channel of said river to the place of beginning.

Minnesota was admitted as a State on May 11, 1858, with the same boundaries that it has at present.<sup>10</sup> These are given in the enabling act, as follows:<sup>11</sup>

Beginning at the point in the center of the main channel of the Red River of the North, where the boundary line between the United States and the British Possessions crosses the same; thence up the main channel of said river to that of the Boix des Sioux River; thence [up] the main channel of said river to Lake Travers; thence up the center of said lake to the southern extremity thereof; thence in a direct line to the head of Big Stone Lake; thence through its center to its outlet; thence by a due south line to the north line of the State of Iowa; thence east along the northern boundary of said State to the main channel of the Mississippi River; thence up the main channel of said river, and following the boundary line of the State of Wisconsin, until the same intersects the Saint Louis River; thence down said river to and through Lake Superior, on the boundary line of Wisconsin and Michigan, until it intersects the dividing line between the United States and the British Possessions; thence up Pigeon River, and following said dividing line, to the place of beginning.

The western boundary line from Big Sioux River to Minnesota River was surveyed and marked in 1859-60 under the General Land Office. (See page 20 for the survey of the northern boundary, page 176 for the survey of the eastern boundary, and page 181 for the survey of the southern boundary.)

<sup>9</sup> 9 Stat. L. 403.

<sup>10</sup> 11 Stat. L. 285.

<sup>11</sup> 11 Stat. L. 166.

The western boundary of Minnesota from Lake Traverse to Big Stone Lake was meandered, and the line from Big Stone Lake to the Iowa line, a distance of 124 miles 5.23 chains, was surveyed and marked in 1859 under the General Land Office.<sup>12</sup>

North of the forty-ninth parallel and separated from the main part of Minnesota by the Lake of the Woods is a land area including a number of small islands, of nearly 124 square miles,<sup>13</sup> which became United States territory by the treaties of 1783 and 1818. See pp. 6 and 11.) The inclusion of this area in the United States resulted from the use of inaccurate maps by the treaty makers and has been described as a "politico-geographical curiosity of a boundary that a glance at the map will show, that no one could have foreseen, and that would be inexplicable without some knowledge of the steps in the process by which it was brought about."<sup>14</sup>

#### NORTH DAKOTA AND SOUTH DAKOTA.

The Territory of Dakota was organized on March 2, 1861, from parts of Minnesota and Nebraska Territories. (See fig. 17.) The following extract from the act of organization defines its original limits:<sup>15</sup>

all that part of the territory of the United States included within the following limits, namely: commencing at a point in the main channel of the Red River of the North where the forty-ninth degree of north latitude crosses the same; thence up the main channel of the same and along the boundary of the State of Minnesota to Big Stone Lake; thence along the boundary line of the said State of Minnesota, to the Iowa line; thence along the boundary line of the State of Iowa to the point of intersection between the Big Sioux and Missouri rivers; thence up the Missouri river, and along the boundary line of the Territory of Nebraska to the mouth of the Niobrara or Running Water river; thence following up the same, in the middle of the main channel thereof, to the mouth of the Keha Paha or Turtle Hill river; thence up said river to the forty-third parallel of north latitude; thence due west to the present boundary of the Territory of Washington; thence along the boundary line of Washington Territory, to the forty-ninth degree of north latitude; thence east along said forty-ninth degree of north latitude to the place of beginning, be, and the same is hereby, organized into a temporary government by the name of the Territory of Dakota.

In 1863 the Territory of Idaho was formed, its area having been taken from Washington, Dakota, and Nebraska. (See Idaho, p. 210.)

In 1864, in the act creating Montana Territory, the area described in the following paragraph was temporarily restored to the jurisdiction of Dakota:<sup>16</sup>

<sup>12</sup> See Winchell, A. N., Minnesota's eastern, southern, and western boundaries: Minnesota Hist. Coll., vol. 10, 1905.

<sup>13</sup> This area as given on General Land Office township plats amounts to 123.87 square miles.

<sup>14</sup> International Joint Comm., Lake of the Woods references final report, p. 140. Washington, 1917.

<sup>15</sup> 12 Stat. L. 239.

<sup>16</sup> 13 Stat. L. 92.

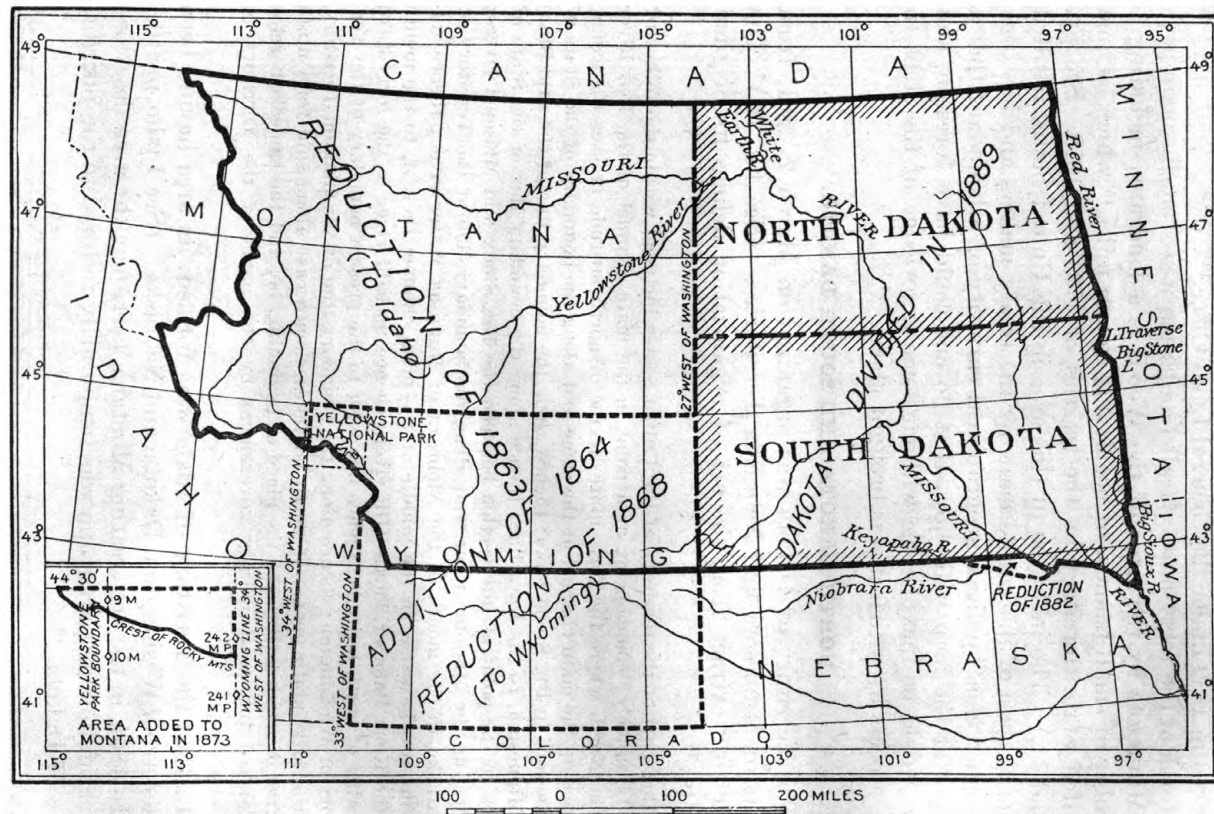


FIGURE 16.—Historical diagram of North and South Dakota.



That, until congress shall otherwise direct, all that part of the Territory of Idaho included within the following boundaries, to wit: Commencing at a point formed by the intersection of the thirty-third degree of longitude west from Washington with the forty-first degree of north latitude; thence along said thirty-third degree of longitude to the crest of the Rocky Mountains; thence northward along the said crest of the Rocky Mountains to its intersection with the forty-fourth degree and thirty minutes of north latitude; thence eastward along said forty-fourth degree thirty minutes north latitude to the thirty-fourth degree of longitude west from Washington; thence northward along said thirty-fourth degree of longitude to its intersection with the forty-fifth degree north latitude; thence eastward along said forty-fifth degree of north latitude to its intersection with the twenty-seventh degree of longitude west from Washington; thence south along said twenty-seventh degree of longitude west from Washington to the forty-first degree north latitude; thence west along said forty-first degree of latitude to the place of beginning, shall be, and is hereby, incorporated temporarily into and made part of the Territory of Dakota.

All but a small part of this area was included in the Territory of Wyoming in 1868.

In 1882 a small area was transferred to Nebraska. (See p. 189.)

By the enabling act of February 22, 1889, the Territory of Dakota was divided into two parts, North Dakota and South Dakota:<sup>17</sup>

The area comprising the Territory of Dakota shall \* \* \* be divided on the line of the seventh standard parallel produced due west to the western boundary of said Territory;

Each part, having adopted a constitution, was declared admitted as a State by presidential proclamation dated November 2, 1889.

The boundary line between North and South Dakota, which is the seventh standard parallel north, of the public-land survey, was surveyed and marked in 1891-92. The marks are placed at each half mile and are substantial cut-stone posts 7 feet long by 10 inches square at top, set  $3\frac{1}{2}$  feet in the ground. The initials of the States are cut on the north and south sides, and the mile numbers on the east. The first mark was placed 9 chains west of the Bois des Sioux River bed. The measured distance to the east bank of the Missouri was 190 miles 8.25 chains. At a distance of 360 miles 45.35 chains the east boundary of Montana was intersected at a point 48.35 chains north of its sixty-fifth milepost. The Montana line at this place was found to bear  $1^{\circ} 01' 30''$  to the west.

Boundary post No. 333, which is near the western end of this line, is in latitude  $45^{\circ} 56' 43.39''$  and longitude  $103^{\circ} 28' 21.44''$ .<sup>18</sup> Where the Chicago & Northwestern Railway crosses this boundary the latitude is  $45^{\circ} 56' 07.7''$  and the longitude  $98^{\circ} 07' 42.1''$ . Near the east end of the line the latitude of a point was found to be  $45^{\circ} 56' 09.7''$ .<sup>19</sup> The northeast corner of North Dakota, which is in

<sup>17</sup> 25 Stat. L. 676.

<sup>18</sup> U. S. Coast and Geodetic Survey Special Pub. 19, p. 93.

<sup>19</sup> U. S. Geol. Survey Bull. 644, p. 296, 1916.

the middle of Red River where it crosses the forty-ninth parallel boundary, is in longitude  $97^{\circ} 13' 42.58''$ .

The west boundary of South Dakota between latitude  $43^{\circ}$  and  $45^{\circ}$  was surveyed in 1877, commencing at a post set in 1869 for the northwest corner of Nebraska. That part of the boundary north of latitude  $45^{\circ}$  was surveyed in 1885. (See p. 196.) The entire west boundary of the State was resurveyed in 1904 and marked with 6-foot stone posts at each mile except from the thirty-ninth to the one hundred and fourth, inclusive, which were marked with iron posts for the Black Hills National Forest. The measured distance to the northeast corner of Wyoming was 139 miles 8.78 chains, and to the northwest corner of South Dakota 204 miles 48.26 chains. From the northeast corner of Wyoming to the southeast corner of Montana the line runs east a distance of 70.68 chains. This jog in the State line is due to errors in the location of the twenty-seventh meridian as determined from two widely separated stations; the position brought down from the north<sup>20</sup> is  $41.6''$  too far east, and that brought up from the south<sup>21</sup> is  $23.3''$  too far west.

Milepost No. 4 on the Wyoming-South Dakota line was located by the United States Coast and Geodetic Survey<sup>22</sup> in 1912 in latitude  $43^{\circ} 03' 30.99''$  and longitude  $104^{\circ} 03' 09.85''$ .

#### NEBRASKA.

The Territory of Nebraska was formed on May 30, 1854, from the northwestern part of Missouri Territory. Its original limits are defined as follows in the act of organization<sup>23</sup> (see fig. 17):

beginning at a point in the Missouri River where the fortieth parallel of north latitude crosses the same; thence west on said parallel to the east boundary of the Territory of Utah, on the summit of the Rocky Mountains; thence on said summit northward to the forty-ninth parallel of north latitude; thence east on said parallel to the western boundary of the territory of Minnesota; thence southward on said boundary to the Missouri River; thence down the main channel of said river to the place of beginning, be, and the same is hereby, created into a temporary government by the name of the Territory of Nebraska.

This area was reduced in 1861 by the formation of the Territories of Colorado and Dakota and further reduced in 1863 by the formation of the Territory of Idaho. (See Colorado, p. 199, Dakota, p. 183, and Idaho, p. 210.)

In 1861, in the act creating the Territory of Dakota, a small area was added to the west end of Nebraska. The following is the text of the act making this addition:<sup>24</sup>

That, until Congress shall otherwise direct, that portion of the Territories of Utah and Washington between the forty-first and forty-third degrees of north

<sup>20</sup> See Montana, east boundary, pp. 196-197.

<sup>21</sup> See Nebraska, forty-first parallel boundary, pp. 189-190.

<sup>22</sup> Special Pub. 19, p. 93.

<sup>23</sup> 10 Stat. L. 277.

<sup>24</sup> 12 Stat. L. 244.

latitude, and east of the thirty-third meridian of longitude west from Washington, shall be, and is hereby, incorporated into and made a part of the Territory of Nebraska.

The act for the admission of Nebraska to the Union was passed by Congress February 9, 1867, over a presidential veto, and, the conditions having been accepted by the people, statehood was declared in effect by proclamation of the President dated March 1, 1867.<sup>25</sup>

The limits of the State are defined as follows in the enabling act, approved April 19, 1864.<sup>26</sup>

That the said state of Nebraska shall consist of all the territory included within the following boundaries, to wit: Commencing at a point formed by the intersection of the western boundary of the state of Missouri with the fortieth degree of north latitude; extending thence due west along said fortieth degree of north latitude to a point formed by its intersection with the twenty-fifth degree of longitude west from Washington; thence north along said twenty-fifth degree of longitude to a point formed by its intersection with the forty-first degree of north latitude; thence west along said forty-first degree of north latitude to a point formed by its intersection with the twenty-seventh degree of longitude west from Washington; thence north along said twenty-seventh degree of west longitude to a point formed by its intersection with the forty-third degree of north latitude; thence east along said forty-third degree of north latitude to the *Reya Paha* [Keyapaha] river; thence down the middle of the channel of said river, with its meanderings, to its junction with the Niobrara river; thence down the middle of the channel of said Niobrara river, and following the meanderings thereof, to its junction with the Missouri river; thence down the middle of the channel of said Missouri river, and following the meanderings thereof, to the place of beginning.

As the result of a sudden change in the course of the Missouri an area of about 5 square miles, which had previously been a part of Dakota Territory, was left on the Nebraska side of the river, a short distance above Sioux City, Iowa. (See fig. 17.) To avoid future complications, this tract was given to Nebraska by an act approved April 28, 1870, "to redefine a portion of the boundary line between the State of Nebraska and the Territory of Dakota," as follows:<sup>27</sup>

That so soon as the State of Nebraska, through her legislature, has given her consent thereto, the centre of the main channel of the Missouri River shall be the boundary line between the State of Nebraska and the Territory of Dakota, between the following points, to wit: Commencing at a point in the centre of said main channel, north of the west line of section twenty four in township twenty nine north, of range eight east of the sixth principal meridian, and running along the same to a point west of the most northerly portion of fractional section seventeen, of said township twenty nine north, of range nine east of said meridian, in the State of Nebraska.

<sup>25</sup> 14 Stat. L. 391.

<sup>26</sup> 13 Stat. L. 47.

<sup>27</sup> 16 Stat. L. 93.

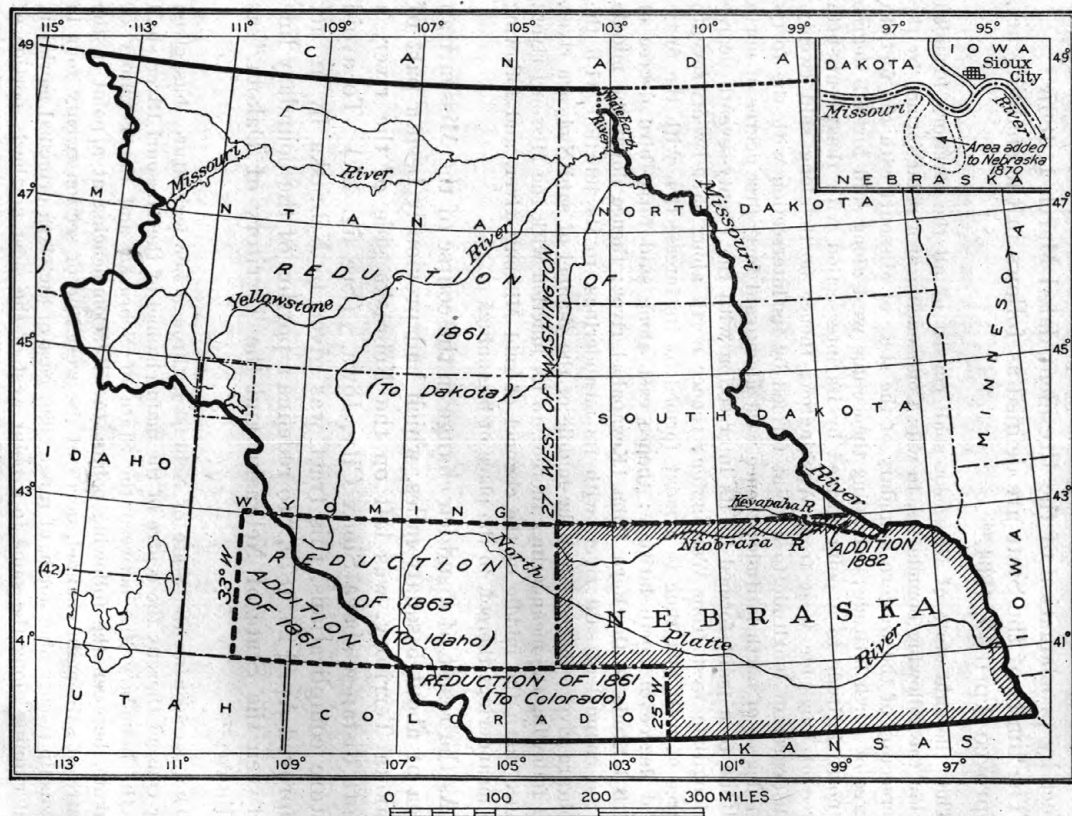


FIGURE 17.—Historical diagram of Nebraska.



For plat showing the changes see General Land Office files, Nebraska township plats, volume 9. This change was approved by Nebraska by act of February 9, 1871.

In 1882 an act was passed transferring to this State from Dakota a small area lying between Keyapaha River and the forty-third parallel of latitude. The following is an extract from this act.<sup>28</sup>

That the northern boundary of the State of Nebraska shall be, and hereby is, subject to the provisions hereinafter contained, extended so as to include all that portion of the Territory of Dakota lying south of the forty-third parallel of north latitude and east of the Keyapaha River and west of the main channel of the Missouri River.

By act of March 1, 1905, Congress approved the compact between Nebraska and South Dakota, fixing the boundary south of Union County, S. Dak., in the middle of the main channel of Missouri River as it then existed.

The north boundary of Nebraska from the center of the Keyapaha westward was surveyed in 1874, after the proper position for the forty-third parallel had been found from an astronomic station near the east end of the line. In 1893 this line was retraced, and 7-foot cut-stone posts were placed at each mile and half-mile corner on the line as established in 1874. The stone set in 1869 for the northwest corner of the State was also replaced by one of the 7-foot posts. The reported length of this line was 224 miles 12.13 chains.

The United States Geological Survey, in 1891, located milepost 184½ in latitude 43° 00' 01.8'', longitude 103° 16' 25.5'', and the United States Coast and Geodetic Survey, in 1912, located milepost 222½ in latitude 43° 00' 06.54'', longitude 104° 00' 02.46''. Both positions refer to North American datum.

In 1893 the north boundary from Keyapaha River eastward was surveyed and marked with 7-foot cut-stone posts, and the distance was given as 57 miles 72.70 chains to a terminal mark 72.82 chains from high-water mark on the west bank of Missouri River.

The west boundary of Nebraska, including the part along the forty-first parallel, was surveyed in 1869 under the direction of the General Land Office. The initial astronomic station was at Julesburg, Colo., the position of which was taken as latitude 40° 59' 01.56'' and longitude 25° 18' 30.90'' west of Washington. From this station a line was measured due north 89.65 chains to the computed position of the forty-first parallel, thence due east 16 miles 10.47 chains to the computed position of the twenty-fifth degree of longitude west from Washington, where a 6-foot limestone corner post was established. From this point a random line was run due south to the calculated position of the fortieth parallel

<sup>28</sup> 22 Stat. L. 35.

and the correct position was determined by astronomic observations. At the point thus found a limestone post 6 feet long by 1 foot square at top, appropriately marked, was set in a mound of earth, from which the line was run north, with marks (most of them wooden posts) set for each mile, a distance of 68 miles 79.59 chains to the forty-first meridian mark.

From the Julesburg meridian mark on the forty-first parallel the line was run west to the intersection with the twenty-seventh meridian, a total distance on the parallel of 104 miles 72.07 chains. The correct position of the twenty-seventh meridian was found from a telegraphic determination of longitude at a station 8 miles 49.45 chains east. From the intersection of the forty-first parallel and the twenty-seventh meridian, where a 6-foot stone post was set, the line was run northward on the twenty-seventh meridian to the northwest corner of Nebraska.

The Nebraska-Wyoming line was retraced in 1908 and re-marked with granite posts 6 feet long and 10 inches square at the top, each set 3 feet in the ground, and marked "WYO" on the west, "NEB" on the east, and the mile number on the south. The measured length of this line was 139 miles 22.43 chains.

#### KANSAS.

The Territory of Kansas was organized on May 30, 1854, from a part of Missouri Territory. (See Pl. VII.) The following clause from the act of organization defines its limits:<sup>29</sup>

all that part of the Territory of the United States included within the following limits, except such portions thereof as are hereinafter expressly exempted from the operations of this act, to wit: beginning at a point on the western boundary of the State of Missouri, where the thirty-seventh parallel of north latitude crosses the same; thence west on said parallel to the eastern boundary of New Mexico; thence north on said boundary to latitude thirty-eight; thence following said boundary westward to the east boundary of the Territory of Utah, on the summit of the Rocky Mountains; thence northward on said summit to the fortieth parallel of latitude; thence east on said parallel to the western boundary of the State of Missouri; thence south with the western boundary of said State to the place of beginning, be, and the same is hereby, created into a temporary government by the name of the Territory of Kansas.

A portion of this area was given up to Colorado Territory in 1861. (See Colorado, p. 199.)

Kansas was admitted into the Union on January 29, 1861, with its present boundaries, which are thus defined in the enabling act:<sup>30</sup>

the said State shall consist of all the territory included within the following boundaries, to wit: beginning at a point on the western boundary of the State of Missouri, where the thirty-seventh parallel of north latitude crosses the

<sup>29</sup> 10 Stat. L. 283. The excepted parts were Indian lands.

<sup>30</sup> 12 Stat. L. 126.

same; thence west on said parallel to the twenty-fifth meridian of longitude west from Washington; thence north on said meridian to the fortieth parallel of latitude; thence east on said parallel to the western boundary of the State of Missouri; thence south with the western boundary of said State to the place of beginning.

The southern boundary of Kansas was surveyed in 1857. The initial point on the thirty-seventh parallel was found from astronomic observations on the Kansas-Missouri boundary line in longitude  $94^{\circ} 40' 26.3''$  and was checked by observations at 10 other astronomic stations. Marks were left at irregular intervals.

From the one hundred sixty-sixth mile to the two hundred twenty-sixth mile this line was resurveyed in 1872 and from the two hundred seventh mile to the two hundred sixty-eighth mile in 1873 by the General Land Office.

Two boundary stones were located by triangulation in 1902 on the Kansas-Oklahoma line—No. 160, a sandstone post 5 by 12 by 20 inches, projecting about 9 inches above ground, marked "160" on top, "K" on the north side, and "I T" on the south side, in latitude  $36^{\circ} 59' 54.98''$ , longitude  $97^{\circ} 54' 01.98''$ ; and No. 163, a stone marked as above described except that "163" is the number on top, in latitude  $36^{\circ} 59' 54.73''$ , longitude  $97^{\circ} 57' 16.45''$ .<sup>31</sup>

The United States Geological Survey<sup>32</sup> in 1906 determined the position of the southeast corner of Kansas as latitude  $36^{\circ} 59' 55.2''$ , longitude  $94^{\circ} 37' 03.3''$ .

The survey of the boundary between Kansas and Nebraska, which is also the base line for land surveys in the two States, was begun in 1854, and 108 miles of line west of Missouri River was run and marked; the marks with few exceptions were small wooden posts or stones. The initial position for the fortieth parallel was found by calculation and measurement from an astronomic station (latitude  $40^{\circ} 01' 10.3''$ ) on the east side of the Missouri about  $2\frac{1}{2}$  miles southeast from the mouth of the Big Nemaha. An initial monument of cast iron for this line was set up in 1855 at a point 52.55 chains west of the right bank of the Missouri, the marks on which are "NEBRASKA" on the north, "1854" on the east, " $40^{\circ}$  N LAT" on the west, and "KANSAS" on the south. This line was resurveyed and re-marked in 1855-56, and the marks on the former line were destroyed. From the 108th mile the line was extended west to the Rocky Mountains in 1858-59 as a base line of the land survey.<sup>33</sup>

For the eastern boundary, see Missouri (pp. 177-178).

The western boundary of Kansas was surveyed in 1872 and from the 174th milepost south to the Oklahoma line was reestablished in

<sup>31</sup> U. S. Coast and Geodetic Survey Rept. for 1903, p. 885.

<sup>32</sup> U. S. Geol. Survey Bull. 440, p. 490, 1910.

<sup>33</sup> See General Land Office files, Kansas exterior plats, vol. 4, p. 2.

1908 by the General Land Office. Most of the marks left were small stones. Several marks on this line have been connected with triangulation stations, giving the following results:

Boundary mark.	Latitude.	Longitude.
	° ' "	° ' "
a 68	39 00 22.6	102 02 45.1
a 73½	38 55 31.0	102 02 43.4
a 78	38 51 30.1	102 02 42.5
a 83	38 47 09.3	102 02 41.8
b 130	38 06 01.5	102 02 41.5
b 140	37 57 18.0	102 02 38.4

a U. S. Coast and Geodetic Survey Rept. for 1902, p. 253.

b U. S. Geol. Survey, Eighteenth Ann. Rept. pt. 1, p. 184.

### OKLAHOMA.

The Territory of Oklahoma was organized under the act of May 2, 1890, from the western part of the Indian Territory. (See pp. 56-57 and fig. 18.) Its limits as originally constituted were set forth in the act as follows:<sup>24</sup>

That all that portion of the United States now known as the Indian Territory, except so much of the same as is actually occupied by the five civilized tribes, and the Indian tribes within the Quapaw Indian Agency, and except the unoccupied part of the Cherokee outlet, together with that portion of the United States known as the Public Land Strip,<sup>25</sup> is hereby erected into a temporary government by the name of the Territory of Oklahoma. The portion of the Indian Territory included in said Territory of Oklahoma is bounded by a line drawn as follows: Commencing at a point where the ninety-eighth meridian crosses the Red River; thence by said meridian to the point where it crosses the Canadian River; thence along said river to the west line of the Seminole country; thence along said line to the north fork of the Canadian River; thence down said river to the west line of the Creek country, thence along said line to the northwest corner of the Creek country; thence along the north line of the Creek country, to the ninety-sixth meridian; thence northward by said meridian to the southern boundary line of Kansas; thence west along said line to the Arkansas River; thence down said river to the north line of the land occupied by the Ponca tribe of Indians, from which point the line runs so as to include all the lands occupied by the Ponca, Tonkawa, Otoe and Missouri, and the Pawnee tribes of Indians until it strikes the south line of the Cherokee Outlet, which it follows westward to the east line of the State of Texas; thence by the boundary line of the State of Texas to the point of beginning; the Public Land Strip which is included in said Territory of Oklahoma is bounded east by the one hundredth meridian, south by Texas, west by New Mexico, north by Colorado and Kansas. Whenever the interest of the Cherokee Indians in the land known as the Cherokee outlet shall have been extinguished and the President shall make proclamation thereof, said outlet shall thereupon and without further legislation become a part of the Territory of Oklahoma. Any other lands within the Indian Territory not embraced within these boundaries, shall hereafter become a part of the Territory of Oklahoma whenever the Indian nation or tribe owning such lands shall signify

<sup>24</sup> 26 Stat. L. 81-82.

<sup>25</sup> Donaldson, Thomas, op. cit., pp. 462, 1187.





to the President of the United States in legal manner its assent that such lands shall so become a part of said Territory of Oklahoma, and the President shall thereupon make proclamation to that effect.

The Public Land Strip was a part of the land ceded to the United States by Texas that had not been included in Kansas or New Mexico.

The United States Supreme Court having decreed that the area east of the one-hundredth meridian and between the two forks of Red River did not belong to Texas (see pp. 151-153), Congress, on May 4, 1896, enacted as follows:<sup>36</sup>

That, the portion of the Territory of Oklahoma bounded by the North Fork of the Red River and the State of Texas, heretofore known as Greer County, Texas, be and the same is hereby established as Greer County, Oklahoma.

The ninety-eighth meridian, which was then part of the west boundary of Indian Territory, was marked by the Geological Survey in 1899 with iron posts set in concrete.

The Cherokee Outlet originally comprised an area of more than 12,000 square miles south of the south boundary of Kansas, west of the ninety-sixth meridian, north of an east-west line through the mouth of Cimarron River, and extending west to the one-hundredth meridian, which was reserved for the use of Indians while traveling to visit their friends in the West. The rights of the Indians in this area were extinguished by treaty dated December 19, 1891, ratified by Congress March 3, 1893,<sup>37</sup> and proclaimed by the President August 19, 1893, effective at 12 o'clock noon of the 16th of September following. This area thereby became a part of the Territory of Oklahoma in accordance with the act of May 2, 1890, and was open to settlers.

The Cherokee Outlet was not the same as the Cherokee strip. The Cherokee strip was a part of the Cherokee country about  $2\frac{1}{2}$  miles wide, just north of the thirty-seventh parallel, now a part of Kansas.

On June 16, 1906, an enabling act for the admission of Oklahoma as a State was passed by Congress,<sup>38</sup> the new State to consist of

all that part of the area of the United States now constituting the Territory of Oklahoma and the Indian Territory as at present described.

The bounds of the Indian Territory, as defined in the act of March 1, 1889, were as follows:<sup>39</sup>

North by the State of Kansas, east by the States of Missouri and Arkansas, south by the State of Texas, and west by the State of Texas and the Territory of New Mexico.

The people of the two Territories having adopted a constitution, the President, by proclamation dated November 16, 1907, declared the admission to statehood complete.<sup>40</sup>

<sup>36</sup> 29 Stat. L. 113.

<sup>37</sup> 27 Stat. L. 640.

<sup>38</sup> 34 Stat. L. 267.

<sup>39</sup> 25 Stat. L. 783.

<sup>40</sup> 35 Stat. L. 2160.

For descriptions of the boundaries of the State of Oklahoma as now marked see Arkansas, pages 157 and 159; Missouri, page 178; Texas, pages 151-154; Kansas, pages 190-191; and Colorado, page 200.

A book by Roy Gittinger, published by the University of California in 1917, entitled "The formation of the State of Oklahoma," contains many references to boundaries as well as a history of the changes in the territory from 1803 to 1906.

An interesting set of diagrams illustrating various stages in the change of the Oklahoma area from Indian ownership to statehood was prepared by George Pamley and printed by the Webb Publishing Co., Oklahoma City, in 1917.

#### MONTANA.

The Territory of Montana was organized by act of May 26, 1864, from a portion of Idaho. Its limits (figs. 16 and 22), which have been changed but slightly, are given as follows in the organizing act:<sup>41</sup>

That all that part of the territory of the United States included within the limits, to wit: Commencing at a point formed by the intersection of the twenty-seventh degree of longitude west from Washington with the forty-fifth degree of north latitude; thence due west on said forty-fifth degree of latitude to a point formed by its intersection with the thirty-fourth degree of longitude west from Washington; thence due south along said thirty-fourth degree of longitude to its intersection with the forty-fourth degree and thirty minutes of north latitude; thence due west along said forty-fourth degree and thirty minutes of north latitude to a point formed by its intersection with the crest of the Rocky Mountains; thence following the crest of the Rocky Mountains northward till its intersection with the Bitter Root Mountains; thence northward along the crest of said Bitter Root Mountains to its intersection with the thirty-ninth degree of longitude west from Washington; thence along said thirty-ninth degree of longitude northward to the boundary line of the British possessions; thence eastward along said boundary line to the twenty-seventh degree of longitude west from Washington; thence southward along said twenty-seventh degree of longitude to the place of beginning, be, and the same is hereby, created into a temporary government by the name of the Territory of Montana.

This act took from Idaho an area bounded in part on the south by the forty-fifth parallel and on the west by the Bitterroot Mountains. The creation of Wyoming Territory in 1868 took from Dakota Territory the greater part of the area that had been restored to it by the Montana act, which extended west to the Continental Divide and north to the point where the divide intersected the parallel of 44° 30', but left a triangular area of about 1½ square miles west of longitude 34°, south of latitude 44° 30', and extending west to the Continental Divide that still belonged to Dakota. This was given to Montana by the act of 1873, which described it as follows (see fig. 16 inset):<sup>42</sup>

That all that portion of Dakota Territory lying west of the one hundred and eleventh meridian of longitude which, by an erroneous definition of the bound-

<sup>41</sup> 13 Stat. L. 86.

<sup>42</sup> 17 Stat. L. 464.

aries of said Territory by a former act of Congress, remains detached and distant from Dakota proper some two hundred miles, be, and the same is hereby, attached to the adjoining territory of Montana.

This act was evidently based on inadequate geographic information relative to the position of the Continental Divide. According to the most reliable maps now available (the U. S. Geological Survey maps of the Shoshone and Grand Teton quadrangles, Wyo.) the Continental Divide crosses the thirty-third meridian west of Washington near the forty-fourth parallel of latitude; running northward the divide intersects the parallel of  $44^{\circ} 30'$  at points about 21 and 17 miles east of the 34th meridian and again 2 miles west of that meridian; the latter intersection is evidently the one referred to in the act.

The act should have described the area as being west of the thirty-fourth meridian instead of west of the one hundred and eleventh meridian, for the Greenwich meridian was not mentioned in the former act.

The enabling act, which included also provisions for the admission of North Dakota, South Dakota, and Washington, fixed their boundaries "as at present described."<sup>43</sup>

The presidential proclamation announcing the admission of Montana as a State was dated November 8, 1889.

The south boundary of Montana was surveyed and marked in 1879-80, under the General Land Office.

That portion of the west boundary between the crest of the Bitterroot Mountains and the Canada line was resurveyed and re-marked in 1898-99 by the United States Geological Survey. A detailed report of this work is given in Bulletin 170 of the Survey.

The remainder of the western boundary was surveyed and marked by stone or 3-inch round iron posts in 1904-1906 under the General Land Office. The total measured length of the Idaho-Montana boundary line from the Canadian border to the Wyoming line is about 738 miles, of which the first 70.7 miles is the meridional line, the next 355 miles is along the crest of the Bitterroot Mountains, and the remaining 312 miles along the Continental Divide. The west boundary of the Yellowstone National Park crosses this line about  $2\frac{1}{2}$  miles west of the Wyoming line.

For reference to the survey of the northern boundary see page 20.

The survey of the east boundary of Montana on the twenty-seventh meridian west of Washington was undertaken in 1885; the initial position had been found by measurement from an astronomic station on the Northern Pacific Railway 6 miles 28.51 chains to the west, where an exchange of time signals had been made by telegraph. From the point thus found a random line was run south to the

<sup>43</sup> 25 Stat. L. 676.



forty-fifth parallel. The mark at the northeast corner of Wyoming on this parallel, as established in 1880, was reported to be 70.68 chains west of the twenty-seventh meridian as fixed by the random line. A point for the intersection of the forty-fifth parallel and the twenty-seventh meridian (the southeast corner of Montana) was marked by a stone post. Both these corner marks were replaced in 1904 by 6-foot cut-stone posts. See page 198 for the geographic position of the Wyoming corner.

From this point the line was run north to the forty-ninth parallel boundary, a measured distance of 276 miles 27.80 chains. The Northern Pacific Railway was crossed at 133 miles 63 chains, Yellowstone River between mileposts 195 and 196, and Missouri River between mileposts 207 and 208. Most of the marks on this line were wooden posts, many of which have since been destroyed. The part from the one hundred and ninety-third milepost to the two hundred and eighteenth was retraced in 1901, and the posts were found to be poorly alined, varying as much as 50 minutes to the east or west for a single mile.

The geographic position of the southeast corner of Montana is latitude  $44^{\circ} 59' 53.74''$  and longitude  $104^{\circ} 02' 20.68''$ .<sup>44</sup> Farther north (at latitude  $47^{\circ} 12' 42.0''$ ) there is an accurately located boundary mark, the longitude of which is  $104^{\circ} 02' 39.4''$ . This mark is an old oak post.<sup>45</sup> The longitude of the intersection of this line with the northern boundary of the United States is  $104^{\circ} 02' 47.53''$ .

### WYOMING.

Wyoming was organized as a Territory on July 25, 1868, from an area previously included in the Territories of Dakota, Idaho, and Utah. Its limits, which are the same as originally established, are defined in the following clause from the act creating the Territory:<sup>46</sup>

That all that part of the United States described as follows: Commencing at the intersection of the twenty-seventh meridian of longitude west from Washington with the forty-fifth degree of north latitude, and running thence west to the thirty-fourth meridian of west longitude, thence south to the forty-first degree of north latitude, thence east to the twenty-seventh meridian of west longitude, and thence north to the place of beginning, be, and the same is hereby, organized into a temporary government by the name of the Territory of Wyoming.

Wyoming was admitted as a State by act of July 10, 1890, with boundaries as above described (see fig. 16), but it was

*Provided*, That nothing in this act contained shall repeal or affect any act of Congress relating to the Yellowstone National Park, or the reservation of the

<sup>44</sup> U. S. Coast and Geodetic Survey Special Pub. 19, p. 93.

<sup>45</sup> *Idem*, p. 94.

<sup>46</sup> 15 Stat. L. 178.

park as now defined, or as may be hereafter defined or extended or the power of the United States over it;<sup>47</sup>

The State has the right to serve criminal or civil writs in the park, but otherwise the United States has exclusive jurisdiction and control over it. The boundaries of the park are given in the act establishing it, dated March 1, 1872.<sup>48</sup>

The north boundary of Wyoming was surveyed in 1879-80 under the General Land Office. Beginning at a post set in 1874 for the northwest corner of the State, the line was run eastward, checked by a number of observations for latitude, for a distance reported as 347 miles 43 chains. The marks were nearly all wooden posts in small mounds of earth, and a field examination of the positions made in 1881-82 by the United States Coast and Geodetic Survey showed numerous large errors in alinement, many of which were then corrected. The eastern terminus of this line was on the meridian of 27° west of Washington as marked in 1877. The mark left at this corner was replaced (see p. 186) in 1905 by a 6-foot stone post, the geographic position of which is latitude 44° 59' 52.0'', longitude 104° 03' 25.62''.<sup>49</sup>

The survey of the south boundary of Wyoming was made under the direction of the General Land Office in 1873. Beginning at a mark established in 1869 for the intersection of the forty-first parallel and the twenty-seventh meridian west of Washington, the line was run westward, checked by six astronomic determinations of latitude, to the computed location for the thirty-fourth meridian west of Washington. In order to find the proper position for this meridian an astronomic station was established at Evanston, Wyo., the longitude of which was found to be 35° 55' 20.69'' west of Washington. From this point a line was run due south to a mark on the boundary and thence west 4 miles 4.54 chains to a point where an 8-foot sandstone post, appropriately marked, was set 3 feet in the ground and surrounded by a pile of rocks. The measured length of the south boundary of Wyoming was found to be 367 miles 48.81 chains.

Geographic positions on this boundary have been determined as follows: Boundary mark No. 44, a sandstone post projecting 4 feet above ground, stands about 11 miles west of south from Cheyenne. Its latitude is 40° 59' 54.2'' and its longitude is 104° 53' 33.6''. This is said to be the only permanent boundary mark for several miles in either direction.<sup>50</sup> Boundary mark No. 163, a cut-stone post 60 by 18 by 18 inches in size, was located by the Geological Survey in

<sup>47</sup> 26 Stat. L. 222.

<sup>48</sup> 17 Stat. L. 32.

<sup>49</sup> U. S. Coast and Geodetic Survey Special Pub. 19, p. 93.

<sup>50</sup> *Idem*, pp. 92, 125.

latitude  $41^{\circ} 00' 11.8''$ , longitude  $107^{\circ} 09' 20.4''$ .<sup>51</sup> The position of the stone that marks the southwest corner of Wyoming is latitude  $40^{\circ} 59' 53.48''$ , longitude  $111^{\circ} 02' 56.67''$ .<sup>52</sup> A considerable part of the south boundary of Wyoming has been retraced by the General Land Office in connection with the surveys of public lands.

The west boundary of Wyoming was surveyed and marked in 1874. Beginning at the mark of 1873 at the southwest corner of the State, the line runs due north for a measured distance of 277 miles 72.66 chains to a point where a 30-inch pine post 10 feet long was set 3 feet in the ground and surrounded by a mound of earth and stone. The position for the intersection with the south boundary of Idaho as marked in 1871 was 51.38 chains north of the 69-mile corner and 55.70 chains west of the mark previously established for the initial point of the Utah-Idaho boundary survey.

#### COLORADO.

A concerted attempt was made in 1858 to organize the "State of Jefferson," which was to include the present area of Colorado together with small areas now within the limits of Nebraska, Wyoming, and Utah; but by popular vote in 1859 it was decided to organize a Territorial government instead. A governor and a legislature were elected and held office until 1861, when the Territory of Colorado was established by act of Congress.<sup>53</sup>

Colorado was organized as a Territory on February 28, 1861,<sup>54</sup> with the same boundaries as at present, being made up from parts of the Territories of Utah, New Mexico, Kansas, and Nebraska. (See Pl. VII and figs. 19 and 21.) The name given to this Territory in the bill as it passed the House was Idaho; it was changed to Colorado in the Senate.

The boundaries were described in an enabling act, approved March 21, 1864, as follows:<sup>55</sup>

That the said state of Colorado shall consist of all the territory included within the following boundaries, to wit: Commencing at a point formed by the intersection of the thirty-seventh degree of north latitude with the twenty-fifth degree of longitude west from Washington; extending thence due west along said thirty-seventh degree of north latitude to a point formed by its intersection with the thirty-second degree of longitude west from Washington; thence due north along said thirty-second degree of west longitude to a point formed by its intersection with the forty-first degree of north latitude; thence due east along said forty-first degree of north latitude to a point formed by its intersection with the twenty-fifth degree of longitude west from Washington; thence due south along said twenty-fifth degree of west longitude.

<sup>51</sup> U. S. Geol. Survey Bull. 201, p. 93.

<sup>52</sup> U. S. Geol. Survey Bull. 181, p. 202.

<sup>53</sup> U. S. Geol. Survey Bull. 707, pp. 62-65, 1922.

<sup>54</sup> 12 Stat. L. 172.

<sup>55</sup> 13 Stat. L. 33.

Another enabling act, without change in boundaries, was approved on March 8, 1875.<sup>56</sup> The conditions of the act having been complied with, the President by proclamation dated August 1, 1876, declared the admission complete.

For reference to the survey and marking of the east boundary see Kansas, pages 191-192, and for the north boundary see Nebraska, pages 189-190, and Wyoming, pages 198-199.

The south boundary of Colorado as far west as the one hundred and third meridian was surveyed in 1858, the terminal mark being a stone post 30 by 10 by 8 inches in a pile of rocks. A survey of the boundary line between Colorado and New Mexico from the one hundred and third meridian westward was authorized by act of Congress, approved March 2, 1867. This line was surveyed and marked in 1868 by E. N. Darling, United States surveyor, presumably on the thirty-seventh parallel of latitude, but subsequent investigations in the vicinity of Edith, Colo., showed that between the sixth and eighth astronomical monuments (there were eleven in all) gross errors in alinement and measurement existed, there being an offset or jog in the vicinity of the two hundred and twelfth mile mark of nearly half a mile.

In order to locate the line where original marks were missing the State of Colorado, in 1901,<sup>57</sup> appropriated funds for the re-establishment of the Darling line between the sixth and eighth astronomical monuments. The act required that the field notes and plats be filed with the Secretary of State of Colorado, to be accepted as conclusive evidence in all cases in Colorado courts in which this part of the southern boundary was in question. This work, done in 1901, by State authority alone, was not accepted or approved by Congress and was therefore not binding on New Mexico, which was then a Territory.

In 1902 Congress authorized the resurvey of the entire line between the State of Colorado and the Territories of New Mexico and Oklahoma.<sup>58</sup> This survey was executed by H. B. Carpenter in 1902-3, but the joint resolution passed by Congress for its acceptance as the legal boundary was vetoed by the President. The Carpenter line differs materially from the Darling line, being considerably north of it in certain places and south of it in others. At the east end the Carpenter line is more than half a mile north of the southern boundary as surveyed in 1858. On October 13, 1919, permission was granted to the State of New Mexico by the United States Su-

<sup>56</sup> 18 Stat. L. pt. 3, 474.

<sup>57</sup> Session laws of 1901, ch. 37.

<sup>58</sup> 32 Stat. L. 552-574.



preme Court to file a suit against the State of Colorado for a settlement of this boundary dispute.

The west boundary of Colorado was surveyed in 1878-79, the initial point being a large stone post established in 1875 in connection with the Arizona-New Mexico boundary survey. (See p. 203.) This mark was placed on the Colorado line as surveyed by Darling in 1868 but 1 mile 45 chains east of his terminal mark. From this point the line was run northward to the Wyoming line, a measured distance of 276 miles 51.66 chains. It was expected that this line would intersect the south boundary of Wyoming about 30 chains west of the two hundred and sixty-first mile mark, whereas the line as run was nearly 1 mile farther west (262 miles 28.58 chains). A sandstone block 30 by 20 by 6 inches was set 18 inches in the ground at this point, marked "WYO" on the northeast, "COL 32° W. L" on the southeast, and "UTAH 41, N L" on the southwest face.

The Colorado-Utah line was retraced in 1885 and re-marked with stone or cedar posts from the south end as far north as milepost 209. Between mileposts 81 and 89 the line was found to diverge toward the west 7° 10', which at least in part accounts for the failure to close as expected on the Wyoming line. The initial mark of this line was thus described in 1885: A stone 7 feet by 12 by 6 inches set 3 feet in the ground, and marked on the northeast face "COLO 37° N L," on the southeast "N MEX 32° W L," on the southwest "ARIZONA," and on the northwest "UTAH 1875." This mark is deserving of more than passing notice, as it is the only one in the United States that is the common corner of four States.

Between the one-hundredth and one hundred and tenth mile the positions of two boundary marks were determined by the Coast and Geodetic Survey<sup>59</sup> in 1893—the south mark in latitude 38° 27' 46.7'', longitude 109° 03' 34.1'', and the north mark in latitude 38° 33' 57.0'', longitude 109° 03' 34.2''. These longitudes show that the line in this locality is nearly half a mile west of its authorized position.

#### NEW MEXICO.

The original area of New Mexico was taken in part from the region transferred by Mexico to the United States by the treaty of Guadalupe-Hidalgo and in part from the territory ceded by Texas. (See pp. 30-31, figs. 12 and 19, and Pl. IV.) The act of Congress of September 9, 1850, fixing the northern boundary of the State of Texas west of the one hundred and third meridian and providing for the payment of \$10,000,000 to that State for land to be ceded to the United States, provided also for the creation of the Territory of New Mexico, when the transaction with Texas was completed. The

<sup>59</sup> Special Pub. 19, p. 100.

formation of this Territory was announced by presidential proclamation of December 13, 1850.

The boundaries fixed in the act of 1850 were thus described:<sup>60</sup>

That all that portion of the territory of the United States bounded as follows: Beginning at a point in the Colorado River, where the boundary line with the republic of Mexico crosses the same; thence eastwardly with the said boundary line to the Rio Grande; thence following the main channel of said river to the parallel of the thirty-second degree of north latitude; thence east with said degree to its intersection with the one hundred and third degree of longitude west of Greenwich; thence north with said degree of longitude to the parallel of thirty-eighth degree of north latitude; thence west with said parallel to the summit of the Sierra Madre [Saguache Mountains]; thence

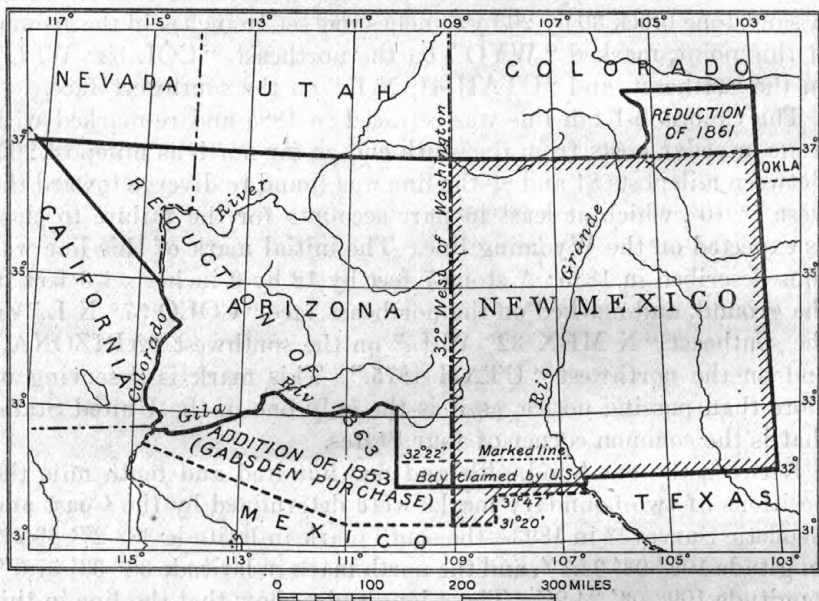


FIGURE 19.—Historical diagram of New Mexico.

south with the crest of said mountains to the thirty-seventh parallel of north latitude; thence west with said parallel to its intersection with the boundary line of the State of California; thence with said boundary line to the place of beginning—be, and the same is hereby, erected into a temporary government by the name of the Territory of New Mexico.

This territory was enlarged on August 4, 1854, by the addition of the Gadsden Purchase<sup>61</sup> and reduced by the formation of Colorado Territory in 1861 (p. 199) and Arizona Territory in 1863 (p. 206). The boundaries as thus changed are the same as those of the present State of New Mexico and are thus described: Beginning at the point of intersection of the one hundred and third meridian of longitude

<sup>60</sup> 9 Stat. L. 447.

<sup>61</sup> 10 Stat. L. 575.

west of Greenwich with the thirty-seventh parallel of latitude; running thence south to its point of intersection with the thirty-second parallel of latitude; thence west on this parallel to its intersection with the Rio Grande; thence southerly down the main channel of the Rio Grande to its point of intersection with the boundary line between the United States and Mexico; thence with this boundary to its intersection with the thirty-second meridian of longitude west from Washington; thence north along this meridian to the thirty-seventh parallel of latitude, and east along that parallel to the place of beginning.

The enabling act for the admission of New Mexico to the Union, dated June 16, 1906, included also provisions for the admission of Oklahoma and Arizona, the boundaries of each to be "as at present described."<sup>62</sup> Further provisions for the admission of New Mexico were made by the act of June 20, 1910,<sup>63</sup> and by the joint resolution of August 21, 1911,<sup>64</sup> which required the acceptance of the Texas-New Mexico boundary line as described in the joint resolution of February 16, 1911 (p. 154). The proclamation by the President declaring New Mexico's admission to statehood in effect was dated January 6, 1912.

For reference to the survey and marking of the New Mexico-Texas boundary see Texas, pages 154-155. For reference to the northern boundary see Colorado, pages 200-201.

The line between New Mexico and Arizona was surveyed in 1875 under the direction of the General Land Office on a meridian determined by reference to a peak named The Needles, located by the Wheeler Survey in 1874, the latitude and longitude of which were taken as  $36^{\circ} 41' 40.3''$  and  $108^{\circ} 50' 26.1''$ , respectively.<sup>65</sup>

This line intersected the south boundary of Colorado as marked by Darling in 1868 (see p. 200) 1 mile 45 chains east of the mark established by him for the southwest corner of that State. The new corner established in 1875 is a sandstone post 7 feet by 12 inches by 6 inches, set 3 feet in the ground (see p. 201) and surrounded by a pile of stone. From this point the line was extended south with marks at mile intervals (most of them small stones inscribed "ARIZ" on the west side and "N MEX" on the east) a measured distance of 391 miles 48.31 chains to an intersection with the United States and Mexico boundary line. This intersection was marked by the 1891-1896 Mexican boundary survey with monument No. 71, the position of which is given as latitude  $31^{\circ} 19' 56.35''$  longitude  $109^{\circ} 02' 56.82''$  (approximate North American datum).

<sup>62</sup> 34 Stat. L. pt. 1, 267.

<sup>63</sup> 36 Stat. L. pt. 1, 557.

<sup>64</sup> 37 Stat. L. pt. 1, 39.

<sup>65</sup> The position given in Tables of geographic positions from data gathered by parties of the U. S. Geographical Surveys West of the One-hundredth meridian, p. 32, Washington, 1885, is latitude  $36^{\circ} 41' 28.0''$ , longitude  $108^{\circ} 50' 18.1''$ .

For a description of the south boundary see page 32. (See fig. 20.)

Suit was instituted in the United States Supreme Court in the October term, 1920 (No. 5, Original), by New Mexico against Texas to have the boundary between the two States south of latitude 32° fixed at the mid-channel of the Rio Grande as it flowed in 1850, when New Mexico was made a Territory, the claim being made by New Mexico that prior to an avulsion which occurred in 1864 the river was in many places east of its present position.

#### UTAH.

Utah was established as a Territory by act of September 9, 1850, and included part of the area acquired from Mexico by the treaty of Guadalupe-Hidalgo. (See fig. 21.) Its limits are given in the following extract from the act by which it was created:<sup>66</sup>

All that part of the territory of the United States included within the following limits, to wit: bounded on the west by the State of California, on the north by the Territory of Oregon, and on the east by the summit of the Rocky Mountains, and on the south by the thirty-seventh parallel of north latitude, be, and the same is hereby, created into a temporary government, by the name of the Territory of Utah.

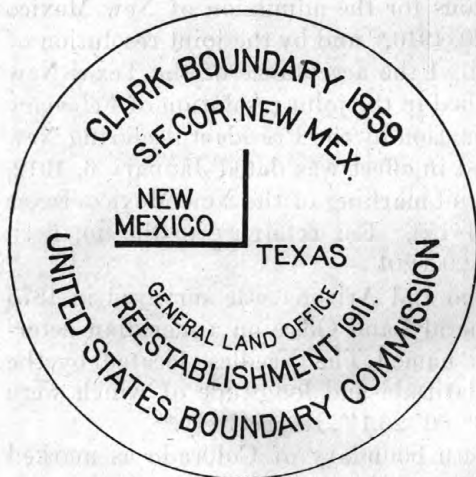


FIGURE 20.—Marks on the tablet at the southeast corner of New Mexico.

This area was reduced by the formation, in 1861, of the Territories of Nevada (see p. 207) and Colorado (see p. 199) and in 1864 and 1866 by the extension eastward of the limits of the State of Nevada.

The present boundaries of Utah are by statute as follows: Commencing with the intersection of the forty-second parallel of latitude with the thirty-fourth meridian of longitude west from Washington; running thence south on this meridian to the forty-first parallel of latitude; thence east on this parallel to the thirty-second meridian of longitude; thence south on this meridian to its intersection with the thirty-seventh parallel of latitude; thence west upon this parallel of latitude to its intersection with the thirty-seventh meridian of longitude; thence north on this meridian to its intersection with the forty-second parallel of latitude; thence east on the forty-second parallel of latitude to the place of beginning.

<sup>66</sup> 9 Stat. L. 453.



The enabling act for Utah, approved July 16, 1894, fixed its boundaries "as at present described."<sup>87</sup> The admission to statehood was declared in effect by the President's proclamation of January 4, 1896.

The Utah-Idaho line was surveyed and marked in 1871 under the direction of the General Land Office. The initial point was fixed by reference to an astronomical station near Bear River. The position for the terminal mark was determined by a long series of observations for latitude with a zenith telescope. The initial mark was a wooden post 8 1/2 feet by 12 inches by 7 inches, marked "34° W L" on the east, "UTAH" on the southwest, "IDAHO" on the north-

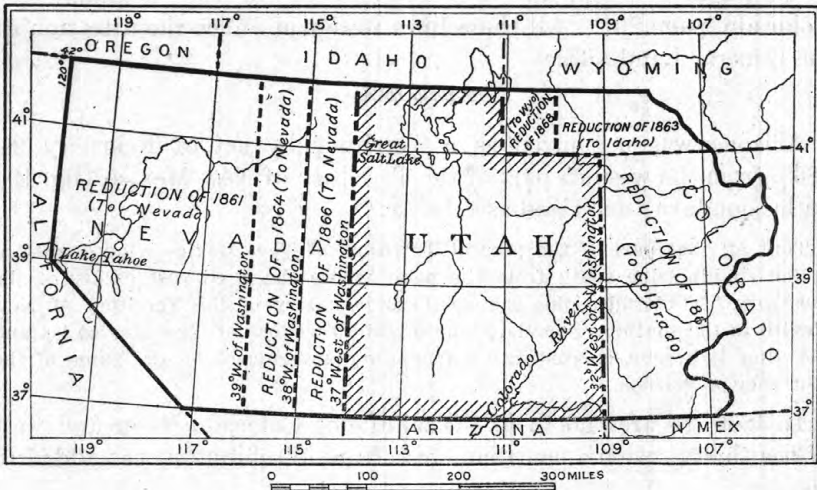


FIGURE 21.—Historical diagram of Utah.

west, and "42 L 1871" on the north, which was surrounded by a large pile of stones. From this point a line was run due west a measured distance of 153 miles 56 chains to a point where an 8-foot cedar post was set in a mound of rocks and suitably marked for the common corners of Nevada and Utah on the Idaho line. A mark set in 1870 for these corners was destroyed, the new mark being placed 1 mile 12 chains farther south.

The Utah-Arizona boundary, on the thirty-seventh parallel of latitude, was surveyed and marked in 1901. The mark set in 1870 for the southwest corner of Utah was destroyed, as observations for latitude showed that it was 1 mile 31.51 chains too far north. A new corner-mark was established 7.88 chains south of the three-hundredth mile mark of the Nevada boundary survey of 1870. This mark consisted of a sandstone post 6 feet by 16 by 12 inches, set in

<sup>87</sup> 28 Stat. L. 107.

a pile of stones and marked "NEVADA" on the northwest, "UTAH" on the northeast, "ARIZONA" on the southeast, and "37 N L 1901" on the southwest.

The line was run thence due east, checked by five latitude stations, a measured distance of 277 miles 5.18 chains, and intersected the post at the southwest corner of Colorado, set in 1875. The mark for each mile of this line is a stone post or iron pipe. Between the one hundred and fifty-second and one hundred and fifty-third mile marks the line passes over the top of a sandstone butte, the summit of which rises about 1,000 feet above the plain. (See Pl. VI, B.)

For reference to the survey of the west boundary of Utah see Nevada, pages 208-209, and for reference to the east boundary see Colorado, page 201. All these lines were run under the direction of the General Land Office.

#### ARIZONA.

Arizona was organized as a Territory by act of February 24, 1863, from the western part of the Territory of New Mexico (fig. 19) with boundaries described as follows:<sup>68</sup>

That all that part of the present Territory of New Mexico situate west of a line running due south from the point where the southwest corner of the Territory of Colorado joins the northern boundary of the Territory of New Mexico to the southern boundary line of said Territory of New Mexico be, and the same is hereby, erected into a temporary government by the name of the Territory of Arizona.

In 1866 the area north of the middle of Colorado River and west of the thirty-seventh meridian west from Washington was added to Nevada.<sup>69</sup>

The admission of Arizona to the Union was provided for in acts of June 16, 1906,<sup>70</sup> and June 20, 1910,<sup>71</sup> and in a joint resolution approved August 21, 1911,<sup>72</sup> and was declared in effect by proclamation dated February 14, 1912.

The present boundaries of Arizona are described as follows: Beginning at the point of intersection of the thirty-seventh parallel of latitude with the thirty-second meridian of longitude west from Washington; thence south along this meridian to its intersection with the boundary line between the United States and Mexico; thence with this boundary to Colorado River; thence up the middle of the main channel of Colorado River to its point of intersection with the thirty-seventh meridian of longitude; north on this meridian to its intersection with

<sup>68</sup> 12 Stat. L. 665.

<sup>69</sup> 14 Stat. 43.

<sup>70</sup> 54 Stat. L. 267, pt. 1.

<sup>71</sup> 36 Stat. L. 570, pt. 1.

<sup>72</sup> 37 Stat. L. 39, pt. 1.

the thirty-seventh parallel; and eastward along the thirty-seventh parallel to the place of beginning.

For reference to surveys of the boundaries see pages 33, 203, 205-206, and 208-209.

#### NEVADA.

Nevada, as organized by act of March 2, 1861, consisted of territory taken from Utah. (See fig. 21.) The following are the boundaries as described in the act.<sup>73</sup>

beginning at the point of intersection of the forty-second degree of north latitude with the thirty-ninth degree of longitude west from Washington; thence running south on the line of said thirty-ninth degree of west longitude, until it intersects the northern boundary line of the Territory of New Mexico; thence due west to the dividing ridge separating the waters of Carson Valley from those that flow into the Pacific; thence on said dividing ridge northwardly to the forty-first degree of north latitude; thence due north to the southern boundary of the State of Oregon; thence due east to the place of beginning.

It will be observed that the limits thus described included a small area to be taken from the State of California. It was therefore

*Provided*, That so much of the Territory within the present limits of the State of California shall not be included within this Territory until the State of California shall assent to the same.

The State of California having refused to cede the territory west of the one hundred and twentieth meridian, Congress by act of July 14, 1862,<sup>74</sup> added to Nevada a strip of land more than 50 miles wide, west of the thirty-eighth meridian from Washington and extending from the north line of New Mexico to the forty-second parallel of latitude.

The boundaries, as described in the enabling act of March 21, 1864, were as follows:<sup>75</sup>

That the said state of Nevada shall consist of all the territory included within the following boundaries, to wit: Commencing at a point formed by the intersection of the thirty-eighth degree of longitude west from Washington with the thirty-seventh degree of north latitude; thence due west along said thirty-seventh degree of north latitude to the eastern boundary line of the state of California; thence in a northwesterly direction along the said eastern boundary line of the state of California to the forty-third degree of longitude west from Washington; thence north along said forty-third degree of west longitude and said eastern boundary line of the state of California to the forty-second degree of north latitude; thence due east along the said forty-second degree of north latitude to a point formed by its intersection with the aforesaid thirty-eighth degree of longitude west from Washington; thence due south down said thirty-eighth degree of west longitude to the place of beginning.

Nevada became a State by presidential proclamation dated October 31, 1864.

<sup>73</sup> 12 Stat. L. 209.

<sup>74</sup> 12 Stat. L. 575.

<sup>75</sup> 13 Stat. L. 30.

An act approved May 5, 1866, further enlarged the area of Nevada by the addition of territory taken from Utah and Arizona, described as follows:<sup>76</sup>

That, as provided for and consented to in the constitution of the State of Nevada, all that territory and tract of land adjoining the present eastern boundary of the State of Nevada, and lying between the thirty-seventh and the forty-second degrees of north latitude and west of the thirty-seventh degree of longitude west of Washington, is hereby added to and made a part of the State of Nevada.

That there is hereby added to and made a part of the State of Nevada all that extent of territory lying within the following boundaries, to wit: Commencing on the thirty-seventh degree of north latitude at the thirty-seventh degree of longitude west from Washington, and running thence south on said degree of longitude to the middle of the river Colorado of the West; thence down the middle of said river to the eastern boundary of the State of California; thence northwesterly along said boundary of California to the thirty-seventh degree of north latitude; and thence east along said degree of latitude to the point of beginning.

The present State of Nevada according to statute is bounded on the east by the thirty-seventh meridian of longitude west of Washington, on the south by the middle of Colorado River to the thirty-fifth parallel, on the southwest by the California line, on the west by the one hundred and twentieth meridian of longitude, and on the north by the forty-second parallel.

The north boundary of Nevada was surveyed in 1873 from an initial point on the Utah-Nevada line, whose latitude had been carefully determined in 1871, westward to a post set in 1868 for the northeast corner of California. The measured distance was 310 miles 48 chains. The marks placed on the line were mounds of earth, wooden posts, or small stones. This line passed the meridian boundary between Idaho and Oregon at 152 miles 72 chains from the northeast corner of Nevada and 4 chains south of the terminal mark of the 1868 survey.

The east boundary of Nevada, which follows the thirty-seventh meridian west of Washington, was surveyed in 1870. The longitude for the initial point was found by direct measurement east from Pilot Peak, whose latitude and longitude had been determined by triangulation from the Salt City astronomic station. The assumed longitude of Pilot Peak was  $114^{\circ} 04' 55.4''$  west from Greenwich; the latest determination by the United States Coast and Geodetic Survey is  $114^{\circ} 04' 36.27''$  (North American datum). The initial point thus selected for the boundary was in the middle of the track of the Central Pacific Railroad (now the Southern Pacific). From this point the line was run northward a measured distance of 46 miles 40 chains to a position which sextant observations indicated

<sup>76</sup> 14 Stat. L. 43.



was the forty-second parallel of latitude. In 1871 a long series of observations made with a zenith telescope showed that the mark at this point was too far north, consequently it was moved south 1 mile 12 chains in 1873.

From the initial point the line was then run south to Colorado River. At a point 1.16 chains south of the railroad track a granite shaft 8 feet high, with its top dressed to 1 foot square and suitably marked, was placed in a pile of rocks, and 298 miles 56 chains south of the railroad a mark was set for the southwest corner of Utah. This mark was later found to be too far north and in 1901 was moved 1 mile 31.51 chains south. (See p. 205.) The distance as then measured, from the initial point on the railroad track to Colorado River, was 356 miles 23.76 chains. This part of the line as well as that north of the railroad was marked with wooden posts, single stones, or mounds of earth and stones.

The following positions on the boundary line between Utah and Nevada have been determined by the United States Coast and Geodetic Survey:<sup>77</sup>

Mark.	Latitude.	Longitude.	Mark.	Latitude.	Longitude.
	° ' "	° ' "		° ' "	° ' "
Wooden post.....	41 01 16.84	114 02 28.46	Line stake.....	39 53 47.06	114 02 25.94
Wooden post.....	40 56 07.79	114 02 29.95	Monument.....	39 09 45.92	114 02 53.13
Wooden post.....	40 55 25.28	114 02 30.09	Line stake.....	38 00 51.70	114 02 50.21
Line stake.....	40 02 44.73	114 02 44.73	Line stake.....	38 00 47.89	114 02 59.31
Line stake.....	39 58 58.30	114 02 46.36			

The one hundred and twentieth meridian boundary between Nevada and California was first marked between 1860 and 1863. A new line farther west was surveyed and marked in 1868, when a point for the intersection of the meridian with the forty-second parallel (the south boundary of Oregon) was established. A third line was run in 1872, and a wooden post in a large pile of stones as a mark for the intersection of the one hundred and twentieth meridian and the forty-second parallel was placed at a point more than 3 miles east of the 1868 corner. This line is the one which still governs, although it was found in 1889 to be considerably west of the true position of the one hundred and twentieth meridian where it intersects the shore of Lake Tahoe.

The following geographic positions on the California-Nevada meridian boundary on North American datum have been determined:<sup>78</sup>

	Latitude.	Longitude.
	° ' "	° ' "
A 6-foot cast-iron post on south side of road between Verdi, Nev., and Truckee, Calif.....	39 31 29.51	120 00 04.05
A small stone post near the town of Crystal Peak, Nev.....	39 31 34.86	120 00 55.41
A squared log surrounded by a large cairn.....	39 31 33.85	120 00 35.44

<sup>77</sup> Special Pub. 19, pp. 105-107.

<sup>78</sup> Idem, pp. 113-114.

Correct marking on the ground of the oblique boundary line between Nevada and California is very difficult. The south terminus is the intersection of the thirty-fifth parallel with the middle of Colorado River. The north terminus is the intersection of the one hundred and twentieth meridian of longitude and the thirty-ninth parallel of latitude, which falls in Lake Tahoe more than 2 miles from shore; furthermore several kinds of lines that will answer the definition of a "straight line" may be run on the earth's surface.<sup>79</sup> The line actually adopted for the survey of 1893-1899 is a geodetic line, which is the shortest line between the two terminals.

Surveys for this boundary line or parts of it were made in 1852, 1855, 1861, 1865, 1873, 1889, and 1890. The present boundary, which was run by the United States Coast and Geodetic Survey in 1893-1899, differs materially from the previous lines.<sup>79</sup> It was accepted as the true boundary by California act of March 1, 1901, and by Nevada act of February 27, 1903, but has not yet been confirmed by Congress. The azimuth of this line from monument No. 1, at Lake Tahoe, is S. 48° 43' 20" E., and from the first monument at the Colorado it is N. 45° 31' 19" W. Its total length is 405.146 miles, and 142 large stone or concrete marks were set on it at intervals of 1 to 5 miles.

#### IDAHO.

The Territory of Idaho was formed March 3, 1863, from parts of Washington, Dakota, and Nebraska. (See figs. 17 and 22.) Its original limits, which included the present States of Idaho, Montana, and Wyoming, were given as follows in the act organizing the Territory:<sup>80</sup>

That all that part of the territory of the United States included within the following limits, to wit: beginning at a point in the middle channel of the Snake River where the northern boundary of Oregon intersects the same; then follow down said channel of Snake River to a point opposite the mouth of the Kooskooskia, or Clearwater River; thence due north to the forty-ninth parallel of latitude; thence east along said parallel to the twenty-seventh degree of longitude west of Washington; thence south along said degree of longitude to the northern boundary of Colorado Territory; thence west along said boundary to the thirty-third degree of longitude west of Washington; thence north along said degree to the forty-second parallel of latitude; thence west along said parallel to the eastern boundary of the State of Oregon; thence north along said boundary to the place of beginning.

From this area Montana was formed in 1864 (see p. 195) and Wyoming in 1868, but part of the territory of Wyoming had been in the meantime restored to Dakota. These changes reduced the

<sup>79</sup> See Coast and Geodetic Survey Rept. for 1900, appendix 3.

<sup>80</sup> 12 Stat. L. 808.

limits of Idaho to those described as follows in the act of admission to statehood, approved July 3, 1890:<sup>81</sup>

Beginning at the intersection of the thirty-ninth meridian with the boundary line between the United States and the British Possessions, then following said meridian south until it reaches the summit of the Bitter Root Mountains; thence southeastward along the crest of the Bitter Root range and the continental divide until it intersects the meridian of thirty-four degrees of longitude; thence southward on this meridian to the forty-second parallel of latitude; thence west on this parallel of latitude to its intersection with a meridian drawn through the mouth of the Owyhee River; north on this meridian to the mouth of the Owyhee River; thence down the mid-channel of the Snake River to the mouth of the Clearwater River; and thence north on the meridian which passes through the mouth of the Clearwater to the boundary line between the United States and the British Possessions, and east on said boundary line to the place of beginning.

The west boundary of Idaho from the mouth of the Clearwater to the forty-ninth parallel was surveyed and marked in 1873 under the direction of the General Land Office. The surveyor who did this work spent several days in attempts to find the position of the mouth of the Clearwater and finally selected the point where empty casks set adrift in the channels of the Snake and the Clearwater bumped together. This line was retraced and 177 stone or iron posts were set on it by the United States Geological Survey in 1908.<sup>82</sup>

The meridian boundary between Idaho and Oregon from the middle of the main channel of Snake River at the mouth of the Owyhee southward to the calculated position of the forty-second parallel, was surveyed and marked in 1868 under the direction of the General Land Office. The latitude of the north end of this line was determined from more than 300 sextant observations as  $43^{\circ} 48' 41.1''$ . The position for the south end was also determined from sextant observations. The measured length of the line was 124 miles 17.2 chains. The marks consisted of wooden posts, small stones, or mounds of stone.

The United States Coast and Geodetic Survey in 1915 located a point on this line near its north end, the position of which is latitude  $43^{\circ} 43' 22.43''$ , longitude  $117^{\circ} 01' 33.65''$  (North American datum).

The east meridian boundary, from the forty-second parallel northward a measured distance of 245 miles  $56\frac{1}{2}$  chains, was surveyed in 1874 under the direction of the General Land Office, and a mark was set on the assumed crest of the Rocky Mountains (the Continental Divide) for the corner common to Idaho, Montana, and Wyoming. From this mark along the crest of the mountains to the intersection with the thirty-ninth Washington meridian the survey was made in

<sup>81</sup> 26 Stat. L. p. 215.

<sup>82</sup> See U. S. Geol. Survey Bull. 466, 1911, for final report and plat of line.

1904-1906 by the General Land Office. The surveyor who ran the line in 1906 found the tri-State mark about 6 miles too far north. He therefore replaced it with a new mark in the corrected position. (See p. 196.)

The thirty-ninth meridian boundary ( $116^{\circ} 03' 02.3''$  west of Greenwich) was surveyed in 1874 and resurveyed by the United States Geological Survey in 1898-99, and 92 metal or stone marks were placed along a measured distance of 70.7 miles.<sup>83</sup>

For reference to the northern boundary see page 20, and for the southern boundary see pages 205 and 208.

### WASHINGTON.

The Territory of Washington was organized March 2, 1853, from a part of Oregon Territory. (See fig. 22.) Its original limits

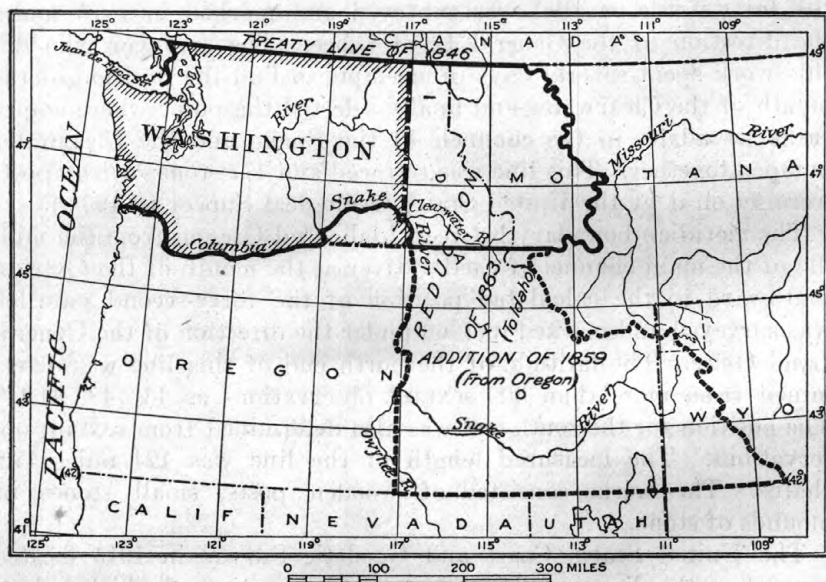


FIGURE 22.—Historical diagram of Washington. (The heavy line below the word "Snake" does not mark a boundary and should be a light line.)

were defined in the following clause from the act of Congress creating it:<sup>84</sup>

That from and after the passage of this act all that portion of Oregon Territory lying and being south of the forty-ninth degree of north latitude, and north of the middle of the main channel of the Columbia River from its mouth to where the forty-sixth degree of north latitude crosses said river, near Fort Walla Walla, thence with said forty-sixth degree of latitude to the summit of the Rocky Mountains, be organized into and constitute a temporary government by the name of the Territory of Washington.

<sup>83</sup> See U. S. Geol. Survey Bull. 170 for complete report and plat.

<sup>84</sup> 10 Stat. L. 172.



In 1859, on the formation of the State of Oregon, the residue of the Territory of Oregon, the part extending from the east boundary of the State to the crest of the Rocky Mountains, was added to Washington. This area, with the part of Washington lying east of its present limits, was included in Idaho on the formation of that Territory in 1863.

The present boundaries of the State of Washington are as follows: Beginning on the coast at the mouth of Columbia River; following up the main channel of the Columbia to its point of intersection with the forty-sixth parallel of latitude; thence east on the forty-sixth parallel to Snake River; thence down the main channel of Snake River to the mouth of the Clearwater; thence north on the meridian which passes through the mouth of the Clearwater to the boundary line between the United States and the British possessions; thence west with that boundary line to the Pacific.<sup>85</sup>

Washington was declared admitted as a State by proclamation dated November 11, 1889, with its limits as above defined.<sup>86</sup> The enabling act was dated February 22, 1889.

See pages 20-21 for survey of the northern boundary, page 211 for survey of the eastern boundary, and page 214 for the survey of the boundary on the forty-sixth parallel.

### OREGON.

The Oregon region in early days was a source of many disputes between the United States and Great Britain, which nearly led to war. It was claimed by the United States at different times as a part of the Louisiana Purchase, by right of discovery (see Pl. II), and as a part of the Spanish cession. In the convention of 1818 with Great Britain joint occupancy for 10 years was provided for. This status continued until 1846, when Congress by resolution authorized the President to give notice of its discontinuance. The United States at that time claimed the area as far north as latitude 54° 40', but by the treaty with Great Britain of 1846 (see p. 18) the disputes regarding title were forever settled and the forty-ninth parallel was made the northern boundary.

Oregon Territory was organized August 14, 1848, with boundaries described as follows <sup>87</sup> (see fig. 22) :

all that part of the Territory of the United States which lies west of the summit of the Rocky Mountains, north of the forty-second degree of north latitude, known as the Territory of Oregon, shall be organized into and constitute a temporary government by the name of the Territory of Oregon.

<sup>85</sup> See articles relating to the northern boundary in Oregon Hist. Soc. Quart., March and December, 1919.

<sup>86</sup> 25 Stat. L. 676.

<sup>87</sup> 9 Stat. L. 323.

In 1853 the Territory was reduced by the formation of Washington Territory, and on February 14, 1859,<sup>88</sup> it was admitted as a State with its present limits. The boundaries were described in the State constitution of 1857 as follows:<sup>89</sup>

Beginning one marine league at sea due west from the point where the forty-second parallel of north latitude intersects the same; thence northerly, at the same distance from the line of the coast lying west and opposite the State, including all islands within the jurisdiction of the United States, to a point due west and opposite the middle of the north ship channel of the Columbia River; thence easterly to and up the middle channel of said river, and, where it is divided by islands, up the middle of the widest channel thereof, and in like manner up the middle of the main channel of Snake River to the mouth of the Owyhee River; thence due south to the parallel of latitude forty-two degrees north; thence west along said parallel to the place of beginning, including jurisdiction in civil and criminal cases upon the Columbia River and Snake River concurrently with States and Territories of which those rivers form a boundary in common with this State. But the Congress of the United States, in providing for the admission of this State into the Union, may make the said northern boundary conform to the act creating the Territory of Washington.

The United States act of February 14, 1859, concludes the description as follows:<sup>90</sup>

to a point near Fort Walla-Walla, where the forty-sixth parallel of north latitude crosses said river; thence east on said parallel to the middle of the main channel of the Shoshonnes or Snake River; thence up the middle of main channel of said river, to the mouth of the Owyhee River; thence due south, to the parallel of latitude forty-two degrees north; thence west, along said parallel, to the place of beginning.

The Oregon-Washington boundary on the forty-sixth parallel, between Snake and Columbia rivers, was surveyed and marked in 1863-64 under the direction of the General Land Office. The latitude used was derived from more than 500 observations with the sextant. Two observation stations were occupied, one near the foot of Cathedral Rock on the Columbia, the other near Cottonwood Creek on the west side of the Blue Mountains. A random line was run between them, which showed an apparent difference of latitude of 4". The final line was run on the mean latitude. Marks were set at mile intervals for 42 miles east from the Columbia, then at irregular intervals over the Blue Mountains. The measured length of the line was 96 miles 57 chains. The easternmost mark, which was placed 3 chains from the west bank of Snake River, was a 7½-foot post 12 inches in diameter, marked "W" on the north, "O" on the south, and "46 L 1868" on the east side, and set in a 6-foot pile of stones.

By a joint resolution approved June 10, 1910,<sup>90a</sup> Congress gave its consent to the States of Oregon and Washington to fix their com-

<sup>88</sup> 11 Stat. L. 383.

<sup>89</sup> Thorpe, F. N., *op. cit.*, vol. 5, p. 3015.

<sup>90</sup> 11 Stat. L. 383.

<sup>90a</sup> 36 Stat. L. 881. See also 211 U. S. 127 and 214 U. S. 217.

mon boundary in Columbia River and to cede the one to the other islands the title to which had been in dispute, but up to the present time no action appears to have been taken by either State to make use of the authority thus granted.

#### CALIFORNIA.

The area included in the present State of California is part of that acquired from Mexico by the treaty of Guadalupe-Hidalgo in 1848. (See fig. 1.) From July 4, 1848, until December 20, 1849, it was under military control, the commanding officer of the military force stationed there acting as provisional governor. From the latter date until Congress passed the act for the admission of California to the Union, approved September 9, 1850,<sup>91</sup> a form of local government was in effect.

The boundaries of the State, as described in the constitution of 1849, are as follows:<sup>92</sup>

Commencing at the point of intersection of forty-second degree of north latitude with the one hundred and twentieth degree of longitude west from Greenwich, and running south on the line of said one hundred and twentieth degree of west longitude until it intersects the thirty-ninth degree of north latitude; thence running in a straight line in a southeasterly direction to the river Colorado, at a point where it intersects the thirty-fifth degree of north latitude; thence down the middle of the channel of said river to the boundary line between the United States and Mexico as established by the treaty of May 30, 1848; thence running west and along said boundary line to the Pacific Ocean, and extending therein three English miles; thence running in a northwesterly direction and following the direction of the Pacific coast to the forty-second degree of north latitude; thence on the line of said forty-second degree of north latitude to the place of beginning. Also all the islands, harbors, and bays along and adjacent to the Pacific coast.

For reference to surveys of the eastern boundary see pages 209-210.

The principal islands claimed as part of the State of California are:

Santa Catalina and San Clemente, 20 to 50 miles off the coast, included in Los Angeles County.

San Nicolas, 60 miles from the coast, included in Ventura County.

Santa Cruz, Santa Rosa, and San Miguel, 20 to 25 miles from the coast, included in Santa Barbara County.

These and many other less important islands passed under the control of the United States in consequence of the treaty of Guadalupe-Hidalgo. The question of sovereignty over these islands has been raised several times, the claim being made that as they were not mentioned in the treaty of 1848, Mexico had not given up its title to them, but it is evident from the following references that it was

<sup>91</sup> 9 Stat. L. 452.

<sup>92</sup> Thorpe, F. N., *op. cit.*, vol. 1, p. 405.

generally understood immediately after the treaty was signed that the islands were a part of the territory ceded to the United States.

A general assertion of jurisdiction over the "islands adjacent to the Pacific coast" was made in the State constitution of 1849, which was formally approved by Congress in 1850.

In an act of Congress approved August 31, 1852,<sup>93</sup> an appropriation was made for subdividing these islands, several of which were mentioned by name, "so that said islands may be readily disposed of under the laws of the United States."

The United States Supreme Court at its December term, 1859, decided a case relating to a land grant on the island of Santa Cruz,<sup>94</sup> in which the claim was based on a Mexican grant of 1839. The question of jurisdiction of the United States over the island was not brought up, although it must have been considered.

Patents have been issued from time to time by the General Land Office for land on the various islands, and reservations have been made on behalf of the United States for lighthouses.

So far as can be ascertained no formal adverse claim to these islands has ever been presented by Mexico, and in view of the foregoing facts it is certain that none can now be made with a hope for favorable consideration.<sup>95</sup>

To determine the proper position for the northeast corner of California (latitude 42°, longitude 120°) an astronomic station was established at Camp Bidwell, where more than 3,000 measurements of lunar distances were said to have been made for longitude in 1868-69. The position for the corner was computed to be 9 miles 56 chains north and 4 miles 78 chains east of the observatory. From the corner thus found the line was run west a distance of 212 miles 28 chains to a terminal mark 12 chains from the shore of the Pacific Ocean. The marks consisted of wooden posts or small stones with "O" cut on the north side, "C" on the south, and the mile number and date on the other sides.

---

<sup>93</sup> 10 Stat. L. 91.

<sup>94</sup> 23 Howard 465.

<sup>95</sup> See Land Dec., vol. 20, p. 106, Washington, 1895.



## APPENDIX.

### REFERENCES.

Nearly all boundaries of States west of the Mississippi, as well as those of many central and southern States, have been surveyed under the direction of the General Land Office. Notes of all such surveys and plats for most of them are on file in the General Land Office, Department of the Interior, in Washington, D. C., and copies of nearly all these records are in the offices of the surveyors general of the States concerned. Many of the field notes are in excellent form, in books especially prepared for them, and are illustrated by photographs or sketches. Other notes are in books of field notes with the regular township surveys. Many resurveys or retracements of short parts of boundary lines have been made, and many corners have been reestablished in connection with the regular surveys of the public lands which are not mentioned in the foregoing pages but are noted in the records of the General Land Office.

The notes and plats are open to public inspection and are indexed so that reference to them is easy; or copies will be supplied to anyone on payment of nominal fees.

Historical diagrams showing changes in State or national boundaries are to be found in many publications, a few of which are listed below:

Lamberton, R. H., *An historical atlas \* \* \* from the dawn of history to the present time*, 7th ed., New York, Townsend Mac Coun, 1884.

Mac Coun, Townsend, *An historical geography of the United States*, rev. ed., New York, Silver Burdett & Co., 1901.

The Century atlas.

U. S. Bureau of Statistics, *Monthly Summary of Commerce and Finance of the United States for August, 1902*.

Stocking, S. W., *Areas and political divisions of the United States, with map: Statistical atlas of the United States Bureau of the Census*, Washington, 1874.

### ORGANIZATION OF THE GOVERNMENT.

The name "united States of America" was used in the Declaration of Independence, July 4, 1776, and the use of the name "United States" for all State papers was ordered by the Continental Congress on September 9, 1776. The first of the "Articles of Confederation and perpetual Union," etc., of 1777, is "The stile of this Confederacy shall be The United States of America."

The Articles of Confederation, agreed to by delegates from the 13 original States on November 15, 1777, were ratified by the States on the dates given below. The defects in the form of government thereby instituted were so many that steps were soon taken to change it. A convention was called in 1787 to draft a constitution for the

United States and completed its labors on September 17 of the same year. The Constitution of the United States of America was ratified and the States became members of the Union on various dates between 1787 and 1790.

The thirteen original States.	Articles of Confederation ratified.	The Constitution ratified.
New Hampshire.....	July 9, 1778.....	June 21, 1788.
Massachusetts.....	do.....	Feb. 6, 1788.
Connecticut.....	do.....	Jan. 9, 1788.
Rhode Island.....	do.....	May 29, 1790.
New York.....	do.....	July 26, 1788.
New Jersey.....	Nov. 23, 1778.....	Dec. 18, 1787.
Pennsylvania.....	July 9, 1778.....	Dec. 12, 1787.
Delaware.....	May 5, 1779.....	Dec. 7, 1787.
Maryland.....	Mar. 1, 1781.....	Apr. 23, 1788.
Virginia.....	July 9, 1778.....	June 26, 1788.
North Carolina.....	July 21, 1778.....	Nov. 21, 1789.
South Carolina.....	July 9, 1778.....	May 23, 1788.
Georgia.....	July 24, 1778.....	Jan. 2, 1788.

#### AREAS OF THE STATES AND OUTLYING POSSESSIONS.

The following facts relating to the area of the United States and its outlying possessions have been assembled in tabular form for convenient reference. The areas are approximate only. Exact drainage basins of large rivers are in many places not well established even on the best of maps.

*Original area of the United States and areas of continental changes (except Alaska and Canal Zone).*

Square miles.

The territory of the United States, as recognized by Great Britain in 1783, being the area limited by the present accepted northern boundary from eastern Maine to the northwesternmost angle of the Lake of the Woods, thence by a direct line to the source of Mississippi River, down that river to the thirty-first parallel of latitude, thence eastward along that parallel and the north line of Florida to the Atlantic Ocean (excluding the water surfaces of the Great Lakes and Atlantic Ocean).....	845, 670
The parts of the Great Lakes under the jurisdiction of the United States.....	60, 950
A 3-mile strip along the Atlantic coast.....	8, 000
Louisiana Purchase, 1803.—That part of the drainage basin of Mississippi River west of that river, including the basin of Missouri River with the area south of the thirty-first parallel, between Mississippi and Perdido rivers:	
South of the forty-ninth parallel.....	<sup>1</sup> 924, 279
North of the forty-ninth parallel.....	13, 000
Red River basin and Lake of the Woods drainage:	
South of the forty-ninth parallel, west of the head of Mississippi River.....	47, 800
North of the forty-ninth parallel and south of the parallel through the northwest angle of the Lake of the Woods, including other drainage east to the lake.....	11, 200

<sup>1</sup> Areas from Bond, Frank (chief clerk, General Land Office), Louisiana and the Louisiana Purchase, p. 13, Washington, 1912.

Square miles.

By treaty with Spain in 1819 the United States acquired East and West Florida, an area of 58,666 <sup>1</sup> square miles, also areas west of Mississippi River (principally in Louisiana) amounting to 13,435 <sup>1</sup> square miles, but relinquished to Spain 96,292 <sup>1</sup> square miles (of the Louisiana Purchase), or a net loss of-----	24, 191
Texas annexed in 1845 (included 94,815 <sup>1</sup> square miles of the area relinquished to Spain in 1819)-----	<sup>1</sup> 389, 166
Oregon Territory, title established in 1846-----	<sup>1</sup> 286, 541
Mexican cession, 1848 (included 1,477 <sup>1</sup> square miles relinquished to Spain in 1819)-----	<sup>1</sup> 529, 189
Gadsden Purchase, 1853-----	<sup>1</sup> 29, 670

The following areas of States are based on calculations by representatives of the General Land Office, the Geological Survey, and the Bureau of the Census.<sup>2</sup> They do not include the part of the water area of the Great Lakes, the Atlantic Ocean, the Gulf of Mexico, and the Strait of Juan de Fuca that is under the jurisdiction of the United States.

*Areas of States and possessions of the United States, in square miles.*

State.	Land.	Water.	Total.	State.	Land.	Water.	Total.
Alabama.....	51, 279	719	51, 998	South Carolina.....	30, 495	494	30, 989
Arizona.....	113, 810	146	113, 956	South Dakota.....	76, 868	747	77, 615
Arkansas.....	52, 525	810	53, 335	Tennessee.....	41, 687	335	42, 022
California.....	155, 652	2, 645	158, 297	Texas.....	262, 398	3, 498	265, 896
Colorado.....	103, 658	290	103, 948	Utah.....	82, 184	2, 806	84, 990
Connecticut.....	4, 820	145	4, 965	Vermont.....	9, 124	440	9, 564
Delaware.....	1, 965	405	2, 370	Virginia.....	40, 262	2, 365	42, 627
District of Columbia.....	62	8	70	Washington.....	66, 836	2, 291	69, 127
Florida.....	54, 861	3, 805	58, 666	West Virginia.....	24, 022	148	24, 170
Georgia.....	58, 725	540	59, 265	Wisconsin.....	55, 256	810	56, 066
Idaho.....	83, 354	534	83, 888	Wyoming.....	97, 548	366	97, 914
Illinois.....	56, 043	622	56, 665	Continental United States.....	2, 973, 774	53, 015	3, 026, 789
Indiana.....	36, 045	309	36, 354	OUTLYING POSSESSIONS.			
Iowa.....	55, 586	561	56, 147	Alaska.....			<sup>a</sup> 586, 400
Kansas.....	81, 774	384	82, 158	Guam.....			<sup>a</sup> 206
Kentucky.....	40, 181	417	40, 598	Hawaii.....			<sup>b</sup> 6, 406
Louisiana.....	45, 409	3, 097	48, 506	Panama Canal Zone.....			<sup>c</sup> 527
Maine.....	29, 895	3, 145	33, 040	Philippine Islands.....			<sup>d</sup> 114, 400
Maryland.....	9, 941	2, 386	12, 327	Porto Rico.....			<sup>d</sup> 3, 435
Massachusetts.....	8, 039	227	8, 266	Samoa.....			<sup>a</sup> 75
Michigan.....	57, 480	500	57, 980	Virgin Islands of the United States.....			<sup>d</sup> 133
Minnesota.....	80, 858	3, 824	84, 682				711, 582
Mississippi.....	46, 362	503	46, 865	Grand total for the United States:			3, 026, 789
Missouri.....	68, 727	693	69, 420	States.....			711, 582
Montana.....	146, 131	866	146, 997	Outlying possessions.....			3, 738, 371
Nebraska.....	76, 808	712	77, 520				
Nevada.....	109, 821	869	110, 690				
New Hampshire.....	9, 031	310	9, 341				
New Jersey.....	7, 514	710	8, 224				
New Mexico.....	122, 503	131	122, 634				
New York.....	47, 654	1, 550	49, 204				
North Carolina.....	48, 740	3, 686	52, 426				
North Dakota.....	70, 183	654	70, 837				
Ohio.....	40, 740	300	41, 040				
Oklahoma.....	69, 414	643	70, 057				
Oregon.....	95, 607	1, 092	96, 699				
Pennsylvania.....	44, 832	294	45, 126				
Rhode Island.....	1, 067	181	1, 248				

<sup>a</sup> U. S. Geological Survey.<sup>c</sup> Governor of Zone.<sup>b</sup> Territorial surveyor.<sup>d</sup> U. S. Coast and Geodetic Survey.

<sup>1</sup> Areas from Bond, Frank (chief clerk, General Land Office), Louisiana and the Louisiana Purchase, p. 13, Washington, 1912.

<sup>2</sup> Fourteenth Census, vol. 1.

# LENGTHS OF THE COAST BOUNDARY LINES OF THE SEVERAL STATES AND THE PRINCIPAL OUTLYING POSSESSIONS.

The following lengths of the tidal shore lines of States bordering on the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean are taken from a bulletin of the United States Coast and Geodetic Survey, dated November, 1915. The figures give the length in statute miles in steps of 1 mile along the shore lines as represented on the best available maps and include the shore lines of bays and other bodies of water the width of whose entrance is greater than 1 mile, to points where these waters narrow to 1 mile, also the shore lines of bodies of tidal water more than 1 mile wide which lie close beside the main waters even though the width off the entrance is less than 1 mile.

*Lengths of tidal shore lines of the United States, in statute miles.*

State.	Mainland.	Islands.	Total.
<b>Atlantic coast:</b>			
Maine.....	558	761	1,319
New Hampshire.....	15	5	20
Massachusetts.....	421	250	671
Rhode Island.....	118	100	218
Connecticut.....	126	18	144
New York.....	31	798	829
New Jersey.....	392	368	760
Pennsylvania.....	13	.....	13
Delaware.....	140	14	154
Maryland.....	770	275	1,045
Virginia.....	780	500	1,280
North Carolina.....	1,040	831	1,871
South Carolina.....	281	960	1,241
Georgia.....	166	727	893
Florida.....	714	507	1,221
<b>Gulf coast:</b>			
Alabama.....	174	117	291
Florida.....	1,273	1,257	2,530
Mississippi.....	99	103	202
Louisiana.....	1,122	591	1,713
Texas.....	973	709	1,682
<b>Pacific coast:</b>			
California.....	1,264	291	1,555
Oregon.....	429	60	489
Washington.....	1,037	684	1,721
<b>Total:</b>			
Atlantic coast.....	5,565	6,114	11,679
Gulf coast.....	3,641	2,777	6,418
Pacific coast.....	2,730	1,035	3,765
Grand total.....	11,936	9,926	21,862

The following are the lengths of tidal shore lines of the principal outlying possessions in steps of 3 miles:

	Statute miles.
Alaska (8,590 miles is on islands).....	15,132
Philippine Islands.....	10,850
Porto Rico.....	362
Guam.....	84
Hawaiian Islands.....	810
Panama Canal Zone (in 1-mile steps).....	33
Samoan Islands.....	91
Virgin Islands of the United States.....	163



The following are the approximate lengths of the shore lines of the United States on the Great Lakes and connecting rivers as estimated by the United States Lake Survey in 1920:

	Statute miles.
Lake Superior.....	1,182
St. Marys River.....	85
Lake Huron.....	581
St. Clair River.....	66
Lake St. Clair.....	46
Detroit River.....	54
Lake Erie.....	404
Niagara River.....	71
Lake Ontario.....	303
St. Lawrence River to the forty-fifth parallel.....	247
Total shore line on international waters.....	3,039

The Canadian shore line is 3,774 miles. The shore line of Lake Michigan, which is entirely in the United States, is 1,304 statute miles.

#### GEOGRAPHIC CENTERS OF THE CONTINENTAL UNITED STATES AND OF THE SEVERAL STATES.

The geographic center of an area may be defined as that point on which the surface of the area would balance if it were a plane of uniform thickness, or in other words the center of gravity of the surface. The exact position of the center of each State can not be determined from the data available, but the following approximate positions are sufficiently exact for ordinary purposes. In finding the centers of the States islands adjacent to their coast lines and large bodies of water on their boundaries have been excluded. The center of the continental United States (exclusive of Alaska) is in the eastern part of Smith County, Kans., latitude  $39^{\circ} 50'$ , longitude  $98^{\circ} 35'$ .<sup>3</sup>

<sup>3</sup> U. S. Coast and Geodetic Survey Special Pub. 47, p. 57.

*Geographic centers of the States.*

State.	County.	Locality.
Alabama.....	Chilton.....	12 miles southwest of Clanton.
Alaska (including islands).....		95 miles south of Fort Gibbon.
Arizona.....	Yavapai.....	45 miles southeast of Prescott.
Arkansas.....	Pulaski.....	12 miles northwest of Little Rock.
California.....	Madera.....	35 miles northeast of Madera.
Colorado.....	Park.....	30 miles northwest of Pikes Peak.
Connecticut.....	Hartford.....	At East Berlin.
Delaware.....	Kent.....	11 miles east of Dover.
District of Columbia.....		Near corner of Fourth and L streets, NW
Florida.....	Hernando.....	12 miles west of north of Brooksville.
Georgia.....	Twiggs.....	18 miles southeast of Macon.
Idaho.....	Custer.....	24 miles south of west of Challis.
Illinois.....	Logan.....	28 miles northeast of Springfield.
Indiana.....	Boone.....	14 miles west of north of Indianapolis.
Iowa.....	Story.....	5 miles northeast of Ames.
Kansas.....	Barton.....	15 miles northeast of Great Bend.
Kentucky.....	Marion.....	3 miles west of north of Lebanon.
Louisiana.....	Avoyelles.....	3 miles southeast of Marksville.
Maine.....	Piscataquis.....	18 miles north of Dover.
Maryland.....	Anne Arundel.....	3 miles east of Collington.
Massachusetts.....	Worcester.....	In northern part of city of Worcester.
Michigan.....	Wexford.....	5 miles west of north of Cadillac.
Minnesota.....	Crow Wing.....	10 miles southwest of Brainerd.
Mississippi.....	Leake.....	9 miles north of west of Carthage.
Missouri.....	Miller.....	20 miles southwest of Jefferson City.
Montana.....	Fergus.....	12 miles west of Lewistown.
Nebraska.....	Custer.....	10 miles northwest of Broken Bow.
Nevada.....	Lander.....	24 miles southeast of Austin.
New Hampshire.....	Belknap.....	3 miles east of Ashland.
New Jersey.....	Mercer.....	5 miles southeast of the State capitol.
New Mexico.....	Torrance.....	12 miles west of south of Willard.
New York.....	Madison.....	6 miles east of south of Oneida.
North Carolina.....	Chatham.....	10 miles northwest of Sanford.
North Dakota.....	Sheridan.....	25 miles northeast of Washburn.
Ohio.....	Delaware.....	25 miles east of north of Columbus.
Oklahoma.....	Oklahoma.....	8 miles north of Oklahoma City.
Oregon.....	Crook.....	25 miles east of south of Prineville.
Pennsylvania.....	Center.....	24 miles southwest of Bellefonte.
Rhode Island.....	Kent.....	1 mile west of south of Crompton.
South Carolina.....	Richland.....	13 miles southeast of Columbia.
South Dakota.....	Hughes.....	8 miles northeast of Pierre.
Tennessee.....	Rutherford.....	5 miles northeast of Murfreesboro.
Texas.....	McCulloch.....	20 miles northeast of Brady.
Utah.....	Sanpete.....	3 miles north of Manti.
Vermont.....	Washington.....	3 miles east of Roxbury.
Virginia.....	Appomattox.....	11 miles south of east of Amherst.
Washington.....	Chelan.....	10 miles south of west of Wenatchee.
West Virginia.....	Braxton.....	4 miles east of Sutton.
Wisconsin.....	Wood.....	9 miles southeast of Marshfield.
Wyoming.....	Fremont.....	58 miles north of east of Lander.

**EXTREME AND MEAN ALTITUDES OF THE STATES AND  
PRINCIPAL POSSESSIONS.**

Some of the altitudes in the following list are approximate only. Exact figures can not be obtained until a complete survey has been made of each area.

*Extreme and mean altitudes in the United States.*

State.	Highest point.			Lowest point.			Approximate mean altitude.
	Name.	County.	Altitude.	Name.	County.	Altitude.	
			<i>Feet.</i>			<i>Feet.</i>	<i>Feet.</i>
Alabama.....	Cheaha Mountain.....	Clay-Talladega.....	2,407	Gulf of Mexico.....	Sea level.....	Sea level.....	500
Alaska.....	Mount McKinley.....	San Francisco Peak.....	20,300	Pacific Ocean.....	Sea level.....	Sea level.....	
Arizona.....	Cocconino.....	Polk-Scott.....	12,611	Colorado River.....	Yuma.....	100	4,100
Arkansas.....	(Magazine Mountain.....	Logan.....	2,800	Ouachita River.....	Ashley-Union.....	55	650
California.....	Mount Whitney.....	Inyo-Tulare.....	14,501	Death Valley.....	Inyo.....	a 276	2,900
Canal Zone.....	Cerro Galera.....	Southwestern part of zone.....	1,223				
Colorado.....	Mount Elbert.....	Lake.....	14,420	Arkansas River.....	Prowers.....	3,350	6,800
Connecticut.....	Bear Mountain.....	Litchfield.....	2,355	Long Island Sound.....	Sea level.....	Sea level.....	500
Delaware.....	Centerville.....	New Castle.....	440	Atlantic Ocean.....	Sea level.....	Sea level.....	60
District of Columbia.....	Tenleytown.....	Northwest part.....	420	Potomac River.....	Sea level.....	Sea level.....	150
Florida.....	Iron Mountain.....	Polk.....	325	Atlantic Ocean.....	Sea level.....	Sea level.....	100
Georgia.....	Brasstown Bald.....	Towns-Union.....	4,768	do.....	Sea level.....	Sea level.....	600
Guam.....	Mount Jumullong Manglo.....		1,274	Pacific Ocean.....	Sea level.....	Sea level.....	
Hawaii.....	Mauna Kea.....	Island of Hawaii.....	13,823	do.....	Sea level.....	Sea level.....	
Idaho.....	Hyndman Peak.....	Blaine-Custer.....	12,078	Snake River.....	Nez Perce.....	720	5,000
Illinois.....	Charles Mound.....	Jo Daviess.....	1,241	Mississippi River.....	Alexander.....	279	600
Indiana.....	Carlos.....	Randolph.....	1,210	Ohio River.....	Vanderburg.....	316	700
Iowa.....	North boundary.....	Osceola.....	1,600	Mississippi River.....	Lee.....	477	1,100
Kansas.....	On West boundary.....	Greeley-Wallace.....	4,135	Verdigris River.....	Montgomery.....	700	2,000
Kentucky.....	Big Black Mountain.....	Harlan.....	4,100	Mississippi River.....	Fulton.....	257	750
Louisiana.....	Northwest part of county.....	Claiborne.....	400	Gulf of Mexico.....	Sea level.....	Sea level.....	100
Maine.....	Mount Katahdin.....	Piscataquis.....	5,273	Atlantic Ocean.....	Sea level.....	Sea level.....	600
Maryland.....	Backbone Mountain.....	Garrett.....	3,340	do.....	Sea level.....	Sea level.....	350
Massachusetts.....	Mount Greylock.....	Berkshire.....	3,505	do.....	Sea level.....	Sea level.....	500
Michigan.....	Poreupine Mountains.....	Ontonagon.....	2,023	Lake Erie.....		573	900
Minnesota.....	Mesabi Range.....	St. Louis.....	1,920	Lake Superior.....		602	1,200
Mississippi.....	Near Iuka.....	Tishomingo.....	780	Gulf of Mexico.....	Sea level.....	Sea level.....	300
Missouri.....	Taum Sauk Mountain.....	Iron.....	1,750	St. Francis River.....	Dunklin.....	230	800
Montana.....	Granite Peak.....	Carbon.....	12,850	Kootenai River.....	Flathead.....	1,800	3,400
Nebraska.....	Southwest part of county.....	Banner.....	5,350	Southeast corner of State.....	Richardson.....	825	2,600
Nevada.....	Boundary Peak, White Mountains.....	Esmeralda.....	13,145	Colorado River.....	Clark.....	470	5,500
New Hampshire.....	Mount Washington.....	Cooks.....	6,293	Atlantic Ocean.....	Sea level.....	Sea level.....	1,000
New Jersey.....	High Point.....	Sussex.....	1,805	do.....	Sea level.....	Sea level.....	250
New Mexico.....	North Truchas Peak.....	Rio Arriba.....	13,306	Red Bluff.....	Eddy.....	2,876	5,700
New York.....	Mount Marcy.....	Essex.....	5,344	Atlantic Ocean.....	Sea level.....	Sea level.....	900
North Carolina.....	Mount Mitchell.....	Yancey.....	6,711	do.....	Sea level.....	Sea level.....	700
North Dakota.....	Summit of county.....	Bowman.....	3,500	Pembina.....	Pembina.....	790	1,900
Ohio.....	Near Bellefontaine.....	Logan.....	1,550	Ohio River.....	Hamilton.....	425	850

a Below sea level.

## Extreme and mean altitudes in the United States—Continued.

State.	Highest point.			Lowest point.			Approximate mean altitude.
	Name.	County.	Altitude.	Name.	County.	Altitude.	
			<i>Fect.</i>			<i>Fect.</i>	<i>Fect.</i>
Oklahoma.....	Black Mesa.....	Cimarron.....	4,800	Red River.....	McCurtain.....	300	1,300
Oregon.....	Mount Hood.....	Clackamas-Hood River.....	11,253	Pacific Ocean.....		Sea level..	3,300
Pennsylvania.....	Negro Mountain.....	Somerset.....	3,213	Delaware River.....		Sea level..	1,100
Philippine Islands.....	Mount Apo.....	Mindanao Island.....	9,610	Pacific Ocean.....		Sea level..	
Porto Rico.....	Luquillo Mountains.....	Humacao.....	3,532	Atlantic Ocean.....		Sea level..	
Rhode Island.....	Durfee Hill.....	Providence.....	805	do.....		Sea level..	200
Samoa.....	Lata.....	Tau Island.....	3,056				
South Carolina.....	Sassafras Mountain.....	Pickens, S. C.; Transylvania, N. C.....	3,548	Atlantic Ocean.....		Sea level..	350
South Dakota.....	Harney Peak.....	Pennington.....	7,242	Big Stone Lake.....	Roberts.....	962	2,200
Tennessee.....	Clingmans Dome.....	Sevier, Tenn.; Swain, N. C.....	6,644	Mississippi River.....	Shelby.....	182	900
Texas.....	El Capitan.....	Culberson.....	9,020	Gulf of Mexico.....		Sea level..	1,700
Utah.....	Kings Peaks.....	Wasatch.....	13,498	Beaverdam Creek.....	Washington.....	2,000	6,100
Vermont.....	Mount Mansfield.....	Chittenden-Lamoille.....	4,406	Lake Champlain.....	Franklin.....	95	1,000
Virginia.....	Mount Rogers.....	Grayson-Smyth.....	5,719	Atlantic Ocean.....		Sea level..	950
Virgin Islands.....	Crown Hill.....	Island of St. Thomas.....	1,550	do.....		Sea level..	
Washington.....	Mount Rainier.....	Pierce.....	14,408	Pacific Ocean.....		Sea level..	1,700
West Virginia.....	Spruce Knob.....	Pendleton.....	4,860	Potomac River.....	Jefferson.....	240	1,500
Wisconsin.....	Rib Hill.....	Marathon.....	1,940	Lake Michigan.....		582	1,050
Wyoming.....	Gannett Peak.....	Fremont.....	13,785	Belle Fourche River.....	Crook.....	3,100	6,700
United States (exclusive of Alaska).....	Mount Whitney.....	Inyo-Tulare, Calif.....	14,501	Death Valley.....	Inyo, Calif.....	a 276	2,500

\* Below sea level.



In order to compare the altitudes in the United States with those in foreign countries the following list is given, but many of the figures are only approximate.

	Approximate mean altitude.	Highest point.		Lowest point.	
		Name.	Above sea level.	Name.	Below sea level.
	<i>Feet.</i>		<i>Feet.</i>		<i>Feet.</i>
North America.....	1,300	Mount McKinley, Alaska.	20,300	Death Valley, Calif....	276
South America.....	1,300	Mount Aconcagua, Chile-Argentina.	23,080	Sea level.....	.....
Europe.....	980	Mount Elbruz, Caucasus Mountains.	18,465	Caspian Sea, Russia...	86
Asia.....	1,600	Mount Everest, India-China.	a 29,002	Dead Sea, Palestine...	1,290
Africa.....	1,600	Kibo Peak (Kilimanjaro), British East Africa.	19,456	Desert of Sahara (estimated).	150
Australia.....	800	Mount Kosciusko, New South Wales.	7,777	Lake Eyre, South Australia.	38

<sup>a</sup> This figure for the altitude of Mount Everest is based on computations made in 1852. A more recent computation of the old observations and of six new ones gives a mean of 29,141 feet. It is estimated that the true height may be from 40 to 100 feet greater than 29,141. For a discussion of this matter see Howard-Berry, Lt. Col. C. K., Mount Everest reconnaissance, 1921, pp. 10-12, New York and London, Longmans Green & Co., 1922.

#### LIMITS OF THE CONTINENTAL UNITED STATES.

The limiting latitudes and longitudes of the mainland of the United States, exclusive of Alaska, are as follows:

Cape Sable, Florida, is in latitude 25° 07', longitude 81° 05'. The extreme south point of Texas is in latitude 25° 50', longitude 97° 24'. The Lake of the Woods projection extends to latitude 49° 23' 04.5'', at longitude 95° 09' 11''. The easternmost land is West Quoddy Head, near Eastport, Maine, in longitude 66° 57', latitude 44° 49'. Cape Alava, Washington, extends into the Pacific Ocean to longitude 124° 44', at latitude 48° 10'.

From the south point of Texas due north to the forty-ninth parallel the distance is 1,598 miles. From West Quoddy Head west along the parallel to the Pacific Ocean the distance is 2,807 miles. These distances are computed to mean sea level.

The length of the Mexican boundary from the Gulf of Mexico to the Pacific Ocean is approximately 1,744 miles. The length of the northern boundary, excluding Alaska, is 3,980 miles. (See p. 220 for length of coast lines.)



# INDEX.

A.	Page.
Acadia, charter granted for	58-59
inclusion of, in the Province of Massachusetts Bay	61, 73-74
Accepted boundary, legality of	2
Alabama, admission of	144
east boundary of	138, 141-142
geographic facts concerning	219-224
north boundary of	130, 145-146
south boundary of	143-144
west boundary of	144-145
Alabama Territory, formation of	56, 144
Alaska, eastern boundary of, marking of	36-37
eastern boundary of, monuments on, plates showing	3
settlement of	35-36
extent of, compared with that of the United States	37-38
geographic facts concerning	219-225
purchase of	33, 35
Alaskan Boundary Commission, appointment and decision of	36
Alexandria, Va., included in the District of Columbia	118
Altitudes, extreme, of the continents	225
extreme and mean, of the several States and chief possessions	222-224
Annapolis, Nova Scotia, settlement at	59
Arbitration by the Emperor of Germany by the King of the Netherlands	14-15
Areas of the States and outlying possessions	218-219
Arizona, admission of	206
boundaries of	206-207
surveys of	33, 203, 205-206, 208-209
geographic facts concerning	219-224
Arizona Territory, area transferred to Nevada from	206
formation of	58, 206
Arkansas, additions of 1905 and 1920 to	159
admission of	56, 157
boundaries of	158-159
geographic facts concerning	219-224
official spelling and pronunciation of name	157
survey of east boundary of	159
north boundary of	159-160
west boundary of	160
Arkansas Territory, formation of	56, 157
reductions of area in 1824 and 1828	157
Ashburton, Lord, mission of	15-16
Augusta County, Va., formation of	164
Avulsion, boundaries not changed by	2, 179
land separated from Arkansas by	159
land separated from Dakota Territory by	187
lands separated from the United States or Mexico by	155-156
land separated from Vermont by	72
Azimuth, definition of	86

B.	Page.
Bahia Honda, Cuba, area leased at	46
Bancos in Rio Grande, elimination of	155-156
Belcher, Governor, marking of New Hampshire and Massachusetts boundary supervised by	65-66
Berkeley, Lord John, interest in New Jersey sold by	102
and Carteret, Sir George, New Jersey bought by	95, 101-102
Boston Corner, cession of, by Massachusetts to New York	85
Boston Ten Towns, N. Y., land titles confirmed in	85
Botetourt County, Va., formation of	164
Burnt Swamp Corner, R. I.-Mass., boundary mark at	75, 76, 77, 78, 80
Byrd line, survey of	130
C.	
Cagayan Sulu, purchase of	40
California, admission of	57, 215
boundaries of	215
early government of	215
geographic facts concerning	219-225
islands claimed as part of	215-216
refusal of, to cede territory to Nevada	207
south boundary of, establishment and marking of	31
survey of east boundary of	209-210
north boundary of	216
Canadian boundary. See North boundary.	
Canal Zone, acquisition of	41-43
Carteret, Sir George, heirs of, sell east New Jersey	102
Berkeley, Lord John, and, New Jersey bought by	95, 101-102
Centers of the United States and the several States	221-222
Changes in boundaries, how authorized	1-2
Channels, choice of, for boundaries	2
effects of changes in	2-3
Cherokee Outlet, addition of, to the Territory of Oklahoma	194
Cherokee strip, location of	194
Choate, Rufus, cited	74-75
Choctaw line, course of	157
Christmas Island, status of	46
Coast boundary lines of the States and outlying possessions, lengths of	220
Confederation, Articles of, dates of ratification	218
Colorado, admission of	58, 199-200
geographic facts concerning	219-224
survey of east boundary of	191-192
north boundary of	189-190, 198-199
south boundary of	200-201
west boundary of	201
Colorado Territory, formation of	58, 199

	Page.
Connecticut, cession of western lands by.....	49-50, 51, 53, 93
colonial grants of lands in.....	88-89
east boundary of.....	83, 87-88
exchange of territory with New York by.....	90-91
geographic facts concerning.....	219-224
north boundary of.....	82-84
west boundary of.....	89-93
Western Reserve of.....	49, 51, 89
Constitution of the United States, dates of ratification.....	218
Continents, highest and lowest altitudes of.....	225
Corner common to four States, location of.....	201
Countries, how boundaries of, are established.....	1
Court decisions, references to.....	4
Crown Monument, N. H.—Maine—Canada, position of.....	64, 69
Crozat, Antoine de, grant of Louisiana province to.....	23
Cuba, naval stations in.....	46
Culpeper, Lord, tract in Virginia sold to.....	124
Cutt, John, commission issued to.....	65
D	
Dakota Territory, division of, into North and South Dakota.....	185
formation of.....	58, 183
part of, included in Idaho Territory.....	183
part of, transferred to Nebraska.....	185, 189
part of Idaho Territory restored to.....	183-184
Daughters of the American Revolution, boundary stones of the District of Columbia protected by.....	121
Deakins line, Md.—Va., course of.....	116
Delaware, boundaries of.....	102-103, 105-108, 110-112
geographic facts concerning.....	219-224
monument on Maryland boundary of.....	111
settlement of, and changes in jurisdiction over.....	95, 110
State government formed.....	110
triangle at Pennsylvania boundary of.....	107-108, 111
Delaware River, jurisdiction over waters of and islands in.....	103
lands west of, claimed by Lord Baltimore.....	106
Des Moines River, rapids of.....	180-181
Disputes between States, how settled.....	2
District of Columbia, boundaries of.....	118, 119, 120, 121
boundaries of, marking of.....	120-121
boundary stone of, plate showing.....	106
counties established in.....	118
geographic facts concerning.....	219-224
lands for, ceded by Maryland and Virginia.....	117
part of, retroceded to Virginia.....	118-119
Disturnell map of Mexico, part of.....	In pocket.
reference to, in treaty.....	31-32
Dutch trading companies, operations by, on Hudson River.....	94
settlements on Delaware River acquired and surrendered by.....	103-104
E.	
Ellicott, Andrew, surveys by.....	101, 108, 138, 140
Envoys, diplomatic, residences for, owned by the United States.....	47-48

	Page.
Erie triangle, claims to.....	53
sale of, to Pennsylvania.....	109
survey of east line of.....	101, 109
Explorers, early, map of the United States showing routes of.....	22
Extraterritorial holdings.....	47-48
F.	
Faden map, boundaries marked on.....	27
Fairfax, Lord, boundaries of tract.....	124-125
Fairfax Stone, description of, in 1859.....	125
placing of.....	125
position of.....	116
Fairhaven, Vt., part of, ceded to New York.....	72
Fincastle County, Va., formation of.....	164
Fire lands of Connecticut, location of.....	51
Florida, admission of.....	143
geographic facts concerning.....	219-224
north boundary of.....	139-141, 143-144
Florida, East, formation of.....	24
north boundary of.....	6, 21
purchase of.....	28-30
Florida, West, claim of the United States to.....	29
division of, between the United States and Spain.....	24
formation of.....	23-24
insurrections in.....	29
north boundary of.....	6, 21, 23-24, 142-143
purchase of.....	28-30
Florida, Province of, changes in jurisdiction over.....	23-24, 142-143
division of, into East and West Florida.....	23-24
Florida Territory, organization of.....	143
France, colonial possessions in America relinquished by.....	24
Louisiana ceded to Spain by.....	24
retroceded by Spain to.....	24
sold to United States by.....	24
territory in New York held by.....	94
Frankland, organization of.....	160
French spoliation claims, assumption of, by the United States.....	24
Fundy, Bay of, ownership of islands in.....	7, 8, 19
G.	
Gadsden Purchase, negotiation of.....	32
Ganong, W. F., cited.....	18
Gast, Pierre du, charter granted to.....	58-59
Gatun Lake area, acquisition of.....	43
Gente Hermosa Island, description of.....	45
Georgia, addition of 1763 to.....	134-135, 136
addition of 1802 to.....	138
cession of western lands by.....	50, 52, 56, 138
colonial grants including.....	136
east boundary of.....	135, 136, 139
geographic facts concerning.....	219-224
north boundary of.....	131, 136, 138-139
south boundary of.....	136, 138, 139-141
west boundary of.....	130, 138, 141-142
Georgia, Strait of, settlement and marking of boundary in.....	18-19, 21
Germany, Emperor of, arbitration by.....	19
Ghent, Treaty of.....	7-8
Gore, at the northeast corner of Vermont, description of.....	69
on south line of New York, claim of Connecticut to.....	89



	Page.		Page.
Gorges, Ferdinando, sale of the Province of		Idaho Territory, formation of.....	58, 210
Maine by.....	60-61	reduction of 1864.....	58, 195, 210
Gorges, Sir Ferdinando, charter granted to..	60	of 1868.....	58, 197, 210
Capt. John Mason and, division of lands		Illinois, admission of.....	55, 171
by.....	60	east boundary of.....	171-172
lands in New England granted to..	59-60	geographic facts concerning.....	219-224
Government of the United States, lands ceded		north boundary of.....	171, 172
for seat of.....	117-118	Illinois Territory, formation of.....	55, 171
organization and name of.....	217-218	Indian Territory, area set apart as.....	56-57
Government surveys, statute prohibiting		survey of west boundary of.....	194
molestation of marks on.....	3-4	union of, with Oklahoma.....	194
Grand Manan Island, jurisdiction over.....	7, 8	Indiana, admission of.....	55, 170
Great Britain, treaty of 1782 with.....	4-6	east boundary of.....	165, 170
treaty of 1783 with.....	6	geographic facts concerning.....	219-214
treaty of 1794 with.....	6-7	north boundary of.....	170-171
treaty of 1814 with.....	7-8	south and west boundaries of.....	170, 171
treaty of 1818 with.....	11	Indiana Territory, additions of 1802 to.....	169-170
treaty of 1842 with.....	15-17	formation of.....	54, 168
treaty of 1846 with.....	18-19	Illinois Territory separated from.....	170
treaty of 1908 with.....	19	Michigan Territory separated from.....	170
treaty of 1910 with.....	19	Inspection and repair of boundary marks.....	3
Great Lakes, lengths of United States shore		Iowa, admission of.....	56, 179-180
lines on.....	221	geographic facts concerning.....	219-224
marking and mapping of boundary in.....	10-	north boundary of.....	181
11, 19-20		south boundary of.....	180-181
settlement of boundary in.....	8-10	Iowa Territory, formation of.....	55, 56, 179
Greenville treaty, boundary established by..	171	Island, can not be in different States at high	
Greer County, addition of, to Oklahoma.....	194	and low water.....	164
dispute concerning.....	151-153	Islands in boundary rivers, ownership of....	2
Guadalupe-Hidalgo, treaty of.....	30-31	Itasca, Lake, position of.....	179
Guam Island, acquisition and position of....	39, 40		
geographic facts concerning.....	219-224		J.
Guano islands, descriptions of.....	44-46	Japan, treaty with, concerning Island of Yap..	47
law concerning.....	44	Jefferson, State of, proposed.....	199
Guantanamo Bay, Cuba, area leased on....	46	Juan de Fuca, Strait of, settlement and marking	
		of boundary in.....	18-19, 21
		Junction of rivers, surveyor's device for finding.....	211
			K.
H.		Kansas, admission of.....	190-191
Halls Stream, part of north boundary of		geographic facts concerning.....	219-224
United States formed by.....	16, 69	survey of east boundary of.....	177-178
Haro, Strait of, settlement and marking of		north boundary of.....	191
boundary in.....	18-19, 21	south boundary of.....	191
Hawaii, Republic of, annexation of.....	38	west boundary of.....	191-192
Hawaiian Islands, positions and sizes of....	38-39	Kansas Territory, formation of.....	57, 190
See also Appendix.		reduction of 1861 to Colorado.....	190
Henlopen, Cape, point formerly known as... 112		Kentucky, admission of.....	126, 164
Henry IV of France, charter of Acadia		boundaries of.....	125-126, 161-162, 164
granted by.....	58-59, 93	geographic facts concerning.....	219-224
High-water line, natural marking of... 119-120, 142		part of, west of northward bend in Mississippi River.....	164
Hopton, Lord, grant in Virginia to.....	124	Kentucky County, Va., formation of.....	125, 164
Hudson Bay traders' territory, south boundary of.....	26, 27	Keyapaha River, area north of, added to	
Hunnewell Point, Maine, settlement on.....	59	Nebraska.....	189
			L.
I.		La Verendrye, exploration by.....	26
Iberville River, boundary of British possessions at.....	23, 26	Lake of the Woods, boundary from, to the	
boundary of Louisiana on.....	148, 149	Rocky Mountains, settlement	
present name of.....	23, 149	and marking.....	11-12, 20
Idaho, admission of.....	211	boundary from Lake Superior to, marking	
boundaries of.....	211	of.....	20
geographic facts concerning.....	219-224	boundary west of, facts and opinions	
survey of east boundary of.....	196, 211-212	concerning.....	6, 25-28
south boundary of.....	205, 208	land of United States northwest of.....	183
west boundary of.....	211		

	Page.		Page.
Lake of the Woods, line south at.....	11-12, 27	Martha's Vineyard, purchased by the Duke of	
longitude of.....	179	York.....	94
mark farthest north on, plate showing.....	3	transferred to Massachusetts Bay Colony.....	95
marking of most northwestern point of.....	11-12	Maryland, boundary between Virginia and.....	113, 116
Lake Superior, boundary from, to Lake of the		boundary stone between the District of	
Woods, marking of.....	20	Columbia and, plate showing.....	106
Lands owned by the original States, act of		east boundary of.....	110-111
1779 concerning.....	49	geographic facts concerning.....	219-224
location of.....	48-49	grant of, to Lord Baltimore.....	112
transfer of, to the Government.....	49-52	land for the District of Columbia ceded	
Latitude, degrees of, regarded as zones.....	104	by.....	117
Latitudes, extreme, of continental United		monument on Delaware boundary of.....	111
States.....	225	north boundary of.....	105-108
Legality of marked and accepted boundaries.....	2	release of Virginia's claims to.....	112-113, 122-123
Limits of the continental United States.....	225	Mason, Capt. John, grant of 1629 to.....	64
Line, marked and accepted, legality of.....	107	grant of 1635 to.....	64-65
Long Island, N. Y., purchased by the Duke		and Gorges, Sir Ferdinando, division of	
of York.....	94	lands by.....	60
Longitudes, extreme, of continental United		grant of 1622 to.....	59-60
States.....	225	Mason and Dixon line, marking of.....	107
Louisiana, addition of 1812 to.....	29, 149	monument No. 20 on, plate showing.....	106
admission of.....	148	survey of.....	106-107
boundaries of.....	148-149	Masonia, tract of land so named.....	65
geographic facts concerning.....	219-224	Massachusetts, Boston Corner ceded to New	
surveys of north boundary of.....	149	York by.....	85
Louisiana, District of, change of name.....	53, 148	boundaries between Rhode Island and,	
District of, formation of.....	56, 148	negotiations concerning.....	74-82
Province of, cession of, by Spain to		boundary between Connecticut and.....	82-84
France.....	24	claims of, to lands in New York settled.....	85, 95-96
cession of, to Spain.....	23	colonial grants of lands in.....	72-74
exploration of.....	22, 26	exchange of territory with Connecticut.....	83
extent of.....	21, 22, 23, 24-25	with Rhode Island.....	80
sale of, to the United States.....	24	geographic facts concerning.....	219-224
Louisiana Purchase, adjustment of west		inspection and repair of marks by.....	3, 86
boundary of.....	30	Maine boundary dispute investigated by.....	15
limits of.....	24-28	north boundary of.....	67, 71
negotiation of.....	24	position of northeast corner of.....	68
Louisiana Territory, change of name.....	177	survey and marking of exterior and in-	
M.		terior boundaries by.....	86
Maine, acceptance of its international		west boundary of.....	85-86
boundary by.....	16, 17	western lands ceded by.....	49, 50-51, 53, 85
admission of.....	61, 85	Men-of-war, jurisdiction on board of.....	48
colonial grants of lands in.....	58-61	Mexico, boundary between United States	
first settlement in.....	59	and, length of.....	225
geographic facts concerning.....	219-221	boundary between United States and,	
inclusion of, in the Province of Massa-		monument No. 167 on, plate	
chusetts Bay.....	61, 73-74	showing.....	4
north and east boundaries of.....	8, 12-18	first cession by.....	30-31
preparations for war over international		dispute over boundary of.....	31-32
boundary of.....	15	part of Disturnell map of.....	In pocket.
protest of, against the boundary award by		second cession by.....	32
the King of the Netherlands.....	15	Michigan, admission of.....	55, 174
west boundary of.....	61-64	boundaries of.....	174-175
Manchac Bayou, early name of.....	23, 14	determination of south boundary of.....	165-168
Map of Mexico, by J. Disturnell, part of.. In pocket.		geographic facts concerning.....	219-224
the British and French Dominions in		Michigan, Lake, length of shore line of.....	221
North America.....	In pocket.	Michigan Territory, addition of 1834 to.....	55, 56, 174
the United States, showing routes of		additions of 1818 to.....	174
early explorers.....	22	formation of.....	54, 172
Marbois, Barbé, testimony of, on the limits		original boundaries of.....	172-174
of the Louisiana province.....	25, 29	separation of Wisconsin Territory from.....	174, 175
Mark No. 925, at Lake of the Woods, position of	12	Midway Islands, description of.....	39
Marked boundary, legality of.....	2	Ministers to foreign countries, residences of,	
Marking of boundaries, methods of.....	3	owned by the United States.....	47-48
Marks, high-water and low-water, in streams.....	119-	Minnesota, admission of.....	56, 182
120, 142, 153		boundaries of.....	182
		geographic facts concerning.....	219-224
		northeastern part temporarily without	
		government.....	55

	Page.		Page.
Minnesota, survey of east boundary of.....	176	New Amsterdam, capture and recapture of..	94
survey of north boundary of.....	20	New Caesarea, New Jersey so called.....	102
south boundary of.....	181	New Connecticut, name taken by Vermont	
west boundary of.....	182,183	in 1777.....	70
Minnesota Territory, formation of.....	55,56,182	New Hampshire, claim of, to territory of	
Mississippi, admission of.....	146	Vermont.....	67
east boundary of.....	144-145,147	colonial grants of lands in.....	64-65
geographic facts concerning.....	219-224	geographic facts concerning.....	219-224
north boundary of.....	146,147	government of, administered by the	
west boundary of.....	148	Massachusetts Bay colony.....	65
Mississippi River, source of.....	25,26,179	north boundary of.....	16,69
Mississippi Territory, addition of 1804 to.....	146	position of southeast corner of.....	68
addition of 1812 to.....	29,146	southwest corner of.....	67-68
formation of.....	56,146	south boundary of.....	65-68
Missouri, addition of 1836 to.....	177-178	west boundary of.....	68-69
admission of.....	56,177	New Hampshire grants, name used by Ver-	
boundaries of.....	177-179	mont after 1777.....	70
geographic facts concerning.....	219-224	New Haven colony, union of, with Connecti-	
historical diagram of.....	176	cut colony.....	89
jog at southeast corner of.....	177	New Jersey, bought by Lord John Berkeley	
north boundary of.....	180-181	and Sir George Carteret....	95,101-102
south boundary of.....	159-160	changes in ownership of.....	102
west boundary of.....	178-179	colonial grants of lands in.....	101-102
Missouri Territory, subdivision of.....	177,178	geographic facts concerning.....	219-224
Mitchell map of the British and French		north and east boundaries of.....	96-99
dominions in North America. In pocket.		west boundary of.....	102-103
description of.....	22	New Mexico, admission of.....	203
Molestation of Government survey marks,		boundaries of.....	202-203
statute prohibiting.....	3-4	boundary suit of, against Texas.....	204
Montana, admission of.....	196	geographic facts concerning.....	219-224
geographic facts concerning.....	219-224	international boundary south of.....	32
survey of east boundary of.....	196-197	mark at southeast corner of, plate show-	
north boundary of.....	20	ing.....	106
south and west boundaries of.....	196	stone on Texas boundary of, plate show-	
Montana Territory, addition of 1873 to.....	195-196	ing.....	106
formation of.....	58,195	survey of boundary between Texas and.....	154-155
Mount Apo, altitude of.....	40	north boundary of.....	200-201
		west boundary of.....	203
N.		New Mexico Territory, addition of 1854 to.....	202
Nantucket, purchased by the Duke of York..	94	formation of.....	57,201-202
transferred to Massachusetts Bay Colony..	95	reductions of area of.....	202
Navassa Island, description of.....	44-45	New Orleans Island, location of.....	23
Navigable waters, boundaries in.....	2	New Sweden, location of.....	103-104
Nebraska, addition of 1870 to.....	187-189	New York, Boston Ten Towns, land titles	
addition of 1882 to.....	189	confirmed in.....	85
admission of.....	187	boundary between New Jersey and....	96-99
boundaries of.....	187	boundary between Pennsylvania and..	100-101
geographic facts concerning.....	219-224	cession of western lands by.....	49,50,53,95
survey of north boundary of.....	189	claim to Vermont relinquished by.....	70,96
south and west boundaries of.....	189-190,191	colonial grants of lands in.....	93-95
Nebraska Territory, addition of 1861 to.....	186-187	Dutch settlements in.....	94
formation of.....	57,186	east boundary of.....	71-72,85-86,89-93,96
reductions of area in 1861 and 1863..	183,199,210	French occupation in.....	94
Netherlands, King of, award on northeastern		geographic facts concerning.....	219-224
boundary by.....	14-15	Indian treaty acknowledging jurisdiction	
Nevada, additions of 1866 to.....	58,208	of Great Britain in.....	94
admission of.....	58,207	north boundary of.....	96
boundaries of.....	207,208	settlement of claims by Massachusetts to	
geographic facts concerning.....	219-224	lands in.....	95-96
survey of east boundary of.....	208	conflicting claims with the Connecti-	
north boundary of.....	208-209	cut colony.....	95
southwest boundary of.....	210	west boundary of.....	101
west boundary of.....	209	New York Bay and connected waters, juris-	
Nevada Territory, addition to.....	207	diction over.....	97-98
formation of.....	58,207	Newcastle, Del., boundary 12 miles from....	104,
			105,106

	Page.		Page.
North boundary of the United States, length of.....	21, 221, 225	Panama, conventions with.....	41-43
marking of.....	19-21	Passamaquoddy Bay, ownership of islands in.....	7, 8, 19
<i>See also</i> Great Lakes, Lake of the Woods, Northeast boundary, Rocky Mountains, and St. Lawrence River.		Pemaquid, patent for, issued to the Earl of Stirling.....	59
North Carolina, cession of western lands by..	50,	sale of, to the Duke of York.....	59, 60
52, 55, 129, 160-161		transfer of, to New England.....	61, 73, 95
colonial grants including.....	128-129	Penn, William, grant of Pennsylvania to....	104
geographic facts concerning.....	219-224	lands in Delaware leased to.....	110
north boundary of.....	130-131, 134	west New Jersey sold to.....	102
positions on.....	132, 134	Pennsylvania, boundary between Ohio and..	109
release of Virginia's claims to.....	122-123	boundary between Virginia and.....	108-109
separation of South Carolina from.....	129	Erie triangle bought by.....	109
south boundary of....	129, 130, 131-132, 133, 134	geographic facts concerning.....	219-224
west boundary of.....	131, 132-133	grant of, to William Penn.....	104
North Dakota, admission of.....	185	north and east boundaries of... 100-101, 103, 109	
geographic facts concerning.....	219-224	release of Virginia's claims to.....	122-123
position of northeast corner of.....	186	south boundary of.....	105-108
survey of south boundary of.....	185	Swedish settlements in.....	103-104
<i>See also</i> Dakota Territory.		triangle at Delaware boundary of.....	107-108
Northeast boundary of the United States, arbitration on.....	14-15	Westmoreland County awarded to.....	105
British comment on.....	17-18	Philippine Islands, acquisition of.....	40
claim of Great Britain concerning.....	14	geographic facts concerning... 40, 219, 220, 224	
claim of the United States concerning... 12-14		Pigeon River. <i>See</i> Lake Superior.	
description of, in treaty of 1782.....	4	Plymouth Co., Connecticut granted to.....	88, 89
formation and action of commission on..	7-8	New England, granted to.....	59
marking of.....	19-20	Possessions of the United States, acquisition of.....	33-46
negotiations concerning.....	15-16	geographic facts concerning.....	219-224
settlement of.....	16-17, 19	Pocomoke River and Sound, locating and marking of Md.-Va. boundary in..	115
Nova Scotia. <i>See</i> Acadia.		Pontchartrain, Lake, boundary of Spanish possessions at.....	23
		Porto Rico, acquisition of.....	39-40
O.		Potomac River, boundary of Virginia fixed at low-water line on.....	115
Ohio, admission of.....	54, 164-165	jurisdiction of the United States Government over.....	119
east boundary of.....	109	Poultney River, land cut off from east side of..	72
geographic facts concerning.....	219-224	Protection of boundary marks.....	3-4
north boundary of.....	165-168	Providence Plantations, grant of charter to..	87
west and south boundaries of.....	168	Public lands, starting point of surveys of....	190
Oklahoma, admission of.....	58, 194		
geographic facts concerning.....	219-224	Q.	
history of changes in.....	195	Quebec, Province of, western boundary in 1774.....	26
survey of east boundary of.....	157, 159, 178	Quintipartite deed, New Jersey divided and conveyed by.....	102
north boundary of.....	190-191, 200	Quita Sueno Bank, description of.....	45
south boundary of.....	151-154		
Oklahoma Territory, addition of Greer County to.....	194	R.	
formation of.....	58, 192-194	Red River basin, ownership of.....	25-26, 28
One-hundredth meridian, survey of.....	153-154	References to court decisions.....	4
Ontario, Province of, early boundaries of....	26-27	to boundary records.....	217
Oregon, admission of.....	57, 214	Rhode Island, constitution adopted by.....	87
boundaries of.....	214	exchange of territory with Massachusetts..	80
geographic facts concerning.....	219-224	geographic facts concerning.....	219-224
survey of east boundary of.....	211	grants and charters to colonies in.....	87
north boundary of.....	214-215	north and east boundaries of.....	74-82
Oregon region, controversy with Great Britain concerning.....	213	west boundary of.....	87-88
relation of, to the Louisiana Province. 23, 24-25		Rio Grande, elimination of bancos on.....	155-156
settlement of boundary through.....	18-19	Rivers, locations of boundaries in.....	2
treaty holding the area open.....	11	Rocky Mountains, boundary west of, marking and mapping of.....	20-21
Oregon Territory, formation of.....	57, 213	boundary west of, negotiations concerning.....	12, 15-16
separation of Washington Territory from..	214	settlement of.....	18-19
transfer of area to Washington Territory from.....	212	Roncador Cay, description of.....	45
Original limits of the United States, treaties defining.....	4-5		
Orleans Territory, formation of.....	56, 148		
Orr and Whitner line, survey of.....	140-141		



	S.	Page.
Sabino peninsula, Maine, settlement on.....		59
St. Croix River, true, determination of.....		6-7
St. Lawrence River, boundary in, marking and mapping of.....		10-11, 19-20
boundary in, settlement of.....		8-9
Samoa Islands, acquisition and features of ..		41
San Ildefonso, treaty of.....		24
Serrana Bank, description of.....		45
Sibutu, purchase of.....		40
South Carolina, colonial grants including...		128-
		129, 134
geographic facts concerning.....		219-224
north boundary of.....	129, 130, 131-132	
release of Virginia's claims to.....		122-123
separation of, from North Carolina.....		129-134
west boundary of.....		134-136
western lands ceded by.....	50, 51-52, 55, 135	
South Dakota, admission of.....		185
geographic facts concerning.....		219-224
survey of north boundary of.....		185
west boundary of.....		186
<i>See also</i> Dakota Territory.		
South Seas, colonial grants running to.....		73,
	85, 89, 121-122, 128, 129, 136	
Pacific Ocean so called.....		122
South boundary of the United States, estab- lishment and marking of.....		31-33
treaties describing.....		6, 21
Southwick Jog, Mass., equivalent for.....		83
Spain, treaty of 1795 with.....		21
treaty of 1819 with.....		29-30
treaty of 1898 with.....		39-40
State Line Butte, Utah-Ariz., plate showing ..		107
States, enactment of changes in boundaries of ..		1
geographic facts concerning.....		219-225
western lands owned by.....		48-49
Statutes, form of references to.....		1
Stirling, Earl of, land granted to.....		59
land sold by heirs of .....	59, 60, 94	
Streams, locations of boundaries in.....	2, 119, 142, 153	
Supreme Court Reports, form of references to ..		1
Swain's Island, description of.....		45
Swan Islands, description of.....		45
Swedish West India Co., settlements made by, on Delaware River.....	95, 103-104	

## T.

Tampa Bay, limit of Louisiana province near . . . . .	22
Tennessee, admission of . . . . .	56, 161
east boundary of . . . . .	132-133
positions on . . . . .	163
geographic facts concerning . . . . .	219-224
north boundary of . . . . .	126-127, 161-164
irregular course of, allowed . . . . .	162
positions on . . . . .	163-164
south boundary of . . . . .	138-139, 145, 147
State organized in east part of . . . . .	160
west boundary of . . . . .	161
Territories, enactment of changes in bound- aries of . . . . .	1-2
Territory northwest of Ohio River, area in- cluded in . . . . .	53
division of . . . . .	53-55, 165, 168
government instituted in . . . . .	53-54

	Page.
Territory south of Ohio River, area included	
in.....	55-56
government instituted in.....	55, 161
Texas, admission of.....	30, 151
boundary stone on New Mexico boundary	
of, plate showing.....	106
dispute of United States with, concerning	
Greer County.....	151-153
east boundary of.....	149-151, 153-154, 156
future division of, provided for.....	151
geographic facts concerning.....	219-224
north boundary of.....	151, 154, 166
sale of lands by.....	52-53, 151
southwest boundary of.....	30-31, 155-156
west boundary of.....	154-155, 156
Texas, Republic of, annexation of.....	30
east boundary of.....	149-151
extent of.....	30, 149
independence of Mexico declared by.....	149
Three-mile belt of territorial waters.....	48
Tonga Islands, privilege of coaling station in.....	46-47
Treaties. <i>See</i> Great Britain and Spain.	
Treaty of 1763, provisions of.....	23, 26
Treaty of San Ildefonso, provisions of.....	24
Tree on boundary line, persistence of axe marks	
in.....	116, 163
section of, plate showing.....	107
Trees on county lines in Virginia, renewal of	
axe marks in.....	127
Tri-State Rock, position of.....	102
Tutula Island, description of.....	41
U.	
Ushur, John, purchase and sale of part of	
Maine by.....	60-61
Utah, admission of.....	205
boundaries of.....	204
geographic facts concerning.....	219-224
survey of east boundary of.....	201
north boundary of.....	205
south boundary of.....	205-206
west boundary of.....	208-209
Utah Territory, reductions of area of.....	204, 207, 208
formation of.....	204
Utrecht, treaty of, boundary provisions in.....	27, 28

## V.

Vermont, admission of.....	70
colonial grants of land in.....	69-70
declared itself an independent State.....	70
east and south boundaries of.....	71
geographic facts concerning.....	219-224
included in New York by royal decree.....	70
north boundary of.....	16, 71
position of southeast corner of.....	67-68
west boundary of.....	71-72
Virgin Islands, purchase of.....	43-44
Virginia, boundary between Kentucky and.....	125-126
boundary between Maryland and.....	113-116
between West Virginia and.....	127, 128
in Pocomoke River and Sound, marking of.....	115-119
constitution of 1776, territories relinquished by.....	122-123

	Page.		Page.
Virginia, division of, between two companies.....	59	West Virginia, admission of.....	127-128
establishment and marking of county boundaries in.....	127	boundaries of.....	108-109, 113, 116, 127, 128
first charter of.....	59, 121	counties included in.....	128
geographic facts concerning.....	219-224	geographic facts concerning.....	219-224
land for the District of Columbia ceded by.....	118	Western Reserve, lands designated as.....	49, 51
reductions of area of.....	122-124	Westmoreland County in Pennsylvania, settlement of claim of Connecticut to.....	104-105
second charter of.....	121-122	Wisconsin, admission of.....	55, 176
south boundary of.....	126-127, 130-131	geographic facts concerning.....	219-224
southwest counties of.....	164	separation of Iowa Territory from.....	175
third charter of.....	121, 122	south boundary of.....	171
West Virginia separated from.....	127-128	west boundary of.....	176
western lands ceded by.....	49, 53, 122, 127	Wisconsin Territory, east boundary of.....	175-176
W.		formation of.....	55, 56, 175
Wake Island, acquisition of.....	41	Witness mark, use of.....	168
Walker line, survey of.....	126, 130, 131	Wrangell Island, description of.....	46
Washington, admission of.....	212	Wrentham, Mass., boundary mark at Burnt Swamp Corner in.....	75, 76, 77, 78, 80
boundaries of.....	212	Wyoming, admission of.....	197
geographic facts concerning.....	219-224	geographic facts concerning.....	219-224
survey of east boundary of.....	211	rights of, in Yellowstone National Park.....	197-198
north boundary of.....	20-21	survey of east boundary of.....	188, 190
south boundary of.....	214-215	north boundary of.....	198
Washington meridian, position of.....	181	south boundary of.....	198-199
State boundaries referred to.....	181	west boundary of.....	199
Washington Territory, addition of 1859 to.....	57, 212	Wyoming Territory, formation of.....	58, 197
formation of.....	57, 212	Wyoming Valley, Pa., claims of Connecticut to.....	104-105
transfer of area to Idaho from.....	212	Y.	
Water marks on streams, use of, as boundaries.....	2, 119, 142, 153	Yap Island, rights of the United States on.....	47
Waters forming international boundaries, free use of.....	17, 18, 30	Yasous River, location of.....	142
territorial, jurisdiction in.....	48	Yellowstone National Park, jurisdiction over.....	197-198
Watkins Point, Md.-Va., location of.....	113, 114	York, Duke of, grant to Earl of Stirling purchased by.....	94
Webster-Ashburton treaty, boundary provisions of.....	15-17	grants of lands to.....	60, 94-95
Wentworth, Gov. T. Benning, letter of, to the Governor of the New York colony.....	67	New Amsterdam captured by.....	94
		New Jersey sold by.....	95
		settlements west of the Delaware acquired and sold by.....	95, 104, 106

ADDITIONAL COPIES  
OF THIS PUBLICATION MAY BE PROCURED FROM  
THE SUPERINTENDENT OF DOCUMENTS  
GOVERNMENT PRINTING OFFICE  
WASHINGTON, D. C.

AT  
50 CENTS PER COPY

PURCHASER AGREES NOT TO RESELL OR DISTRIBUTE THIS  
COPY FOR PROFIT.—PUB. RES. 57, APPROVED MAY 11, 1922