

Ord. 111
A GEOLOGICAL ACCOUNT
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UNITED STATES;

A SHORT DESCRIPTION

ANIMAL, VEGETABLE, AND MINERAL
PRODUCTIONS,

Abstract

Member of the American Philosophical Society, and Corresponding
Member of the Literary and Philosophical Society of Manchester.

PUBLISHED BY BIRCH & SMALL.

1807.

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A GEOLOGICAL ACCOUNT
OF THE
UNITED STATES;

COMPREHENDING

A SHORT DESCRIPTION

OF THEIR

ANIMAL, VEGETABLE, AND MINERAL
PRODUCTIONS,
ANTIQUITIES AND CURIOSITIES.

BY JAMES MEASE, M. D.

Member of the American Philosophical Society, and Corresponding
Member of the Literary and Philosophical Society of Manchester.

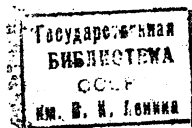
‘Review these numerous scenes—at once survey
Nature’s extended face, then Sceptics say,
In this wide field of wonders, can you find
No art discover’d, and no end design’d?’

PHILADELPHIA:

PUBLISHED BY BIRCH & SMALL.

R. CARR, PRINTER.

1807.



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District of Pennsylvania: to wit.

Be it Remembered, That on the twenty-third day of April, in the thirty-first Year of the Independence of the United States of America, A. D 1807, William Young Birch and Abraham Small, of the said District, have deposited in this Office the Title of a Book, the Right whereof they claim as Proprietors, in the words following, to wit :

“A Geological Account of the United States ; comprehend-
“ing a short description of their Animal, Vegetable, and
“Mineral productions, Antiquities and Curiosities. By
“James Mease, M. D. Member of the American Philo-
“sophical Society, and Corresponding Member of the
“Literary and Philosophical Society of Manchester.

“Review these numerous scenes—at once survey
Nature’s extended face, then Sceptics say,
In this wide field of wonders can you find
No art discover’d, and no end design’d.”

In Conformity to the Act of the Congress of the United States, intituled, “An Act for the Encouragement of Learning, by securing the Copies of Maps, Charts, and Books, to the Authors and Proprietors of such Copies during the times therein mentioned,” and also to the Act entitled, “An Act supplementary to an Act, entitled, An Act for the Encouragement of Learning, by securing the Copies of Maps, Charts, and Books, to the Authors and Proprietors of such Copies, during the Times therein mentioned. And extending the Benefits thereof to the Arts of designing, engraving and etching, historical and other Prints.”

(L. S.)

D. CALDWELL,
Clerk of the District of Pennsylvania.

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ERRATA.

Page 104, for vol. viii. read vol. vi.

254, 12th line from bottom, for *red*, read *white*.

324, Buffon is incorrectly quoted. The assertion of that great Naturalist is, that "no species of animal of the *Torrid Zone*, had been placed primitively in both Continents." It is difficult to say which position is most absurd, the one in p. 324, or the above.

347. The remark on the present winter, (1806-7) refers to the part of it preceding February.

368. The article *Testudo Polyphemus*, was placed through inadvertence, among the *FISHES*.

PREFACE.

IN treating of the Climate, the Geology, and the Winds of the United States, the divisions and remarks of Mr. Volney have been assumed as the basis :—in many respects they are extremely accurate and ingenious, and justify the opinion which has been formed of his talents for physical geography ; but care has been taken, at the same time, to correct some important errors, into which he had fallen, and to supply his defects. As to the rest of the work, the authorities upon which the facts and statements are founded, are generally given, and the reader may be assured, that the most scrupulous attention has been exercised in ascertaining their accuracy.

JAMES MEASE.

Philadelphia, February 14, 1807.

AN ACCOUNT
OF
THE UNITED STATES
OF
NORTH AMERICA, &c.

CHAP. I.

Boundaries, &c.

AT the conclusion of the revolutionary war, in 1783, which effected the independence of the States, the boundaries between them and the territories of the king of England, were fixed by a treaty concluded at Paris; agreeably to which, the division-line between them commenced at that angle which is formed by a line drawn due north from the source of the St. Croix river to the highlands, along the said highlands, which divide those rivers that empty into the river St. Lawrence, from those which fall into the Atlantic ocean, to the north-westernmost 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 Cataraquie; thence along the middle of the 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 communication into lake Erie; through the middle of said lake until it arrives at the water communication between that lake and lake Huron; thence through the middle of said lake to the water communication between that lake and lake Superior; thence through lake Superior, northward of the isles Royal and Philippeaux, 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 north-western point thereof; and from thence, on a due west course, to the river Mississippi; thence along the middle of the said river Mississippi, until 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 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 point 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.

According to the above courses, the boundary-line between the United States and British America, is to *run west until it strike the river Mississippi*, but, in the opinion of Mr. M'Kenzie, this can never happen, as the north-west part of the Lake-of-the-Woods is in latitude 49 deg. 37 min. north, and longitude 94 deg. 31 min. west, and the northernmost branch of the source of the Mississippi is in latitude 47 deg. 38 min. north, and longitude 95 deg. 6 min. west, as ascertained by Mr. Thompson, astronomer to the North-West Company, and who was sent expressly for the purpose, in the Spring of 1798..... He, at the same time, determined the northern bend of the Missouri to be in latitude 47 deg. 32 min. north, and longitude 101 deg. 25 min. west; and, according to the Indian accounts, it runs to the south of west; so that if the Missouri were even to be considered as the Mississippi, no western line could strike it. Mr. M'Kenzie further observes, that it does not clearly appear to be determined, what course the line is to take, or from what part of lake Superior it strikes through the country to the Lake-

of-the-Woods: were it to follow the principal waters to their source, it ought to keep through lake Superior to the river St. Louis, and follow that river to its source; close to which is the source of the waters falling into the river of lake La Pluie, or the rainy lake, which is the common route of the Indians to the Lake-of-the-Woods.

This vast territory, measuring from north to south, comprises more than sixteen degrees of latitude, viz. from 31 deg. north, to about 47 deg. from east to west, includes upwards of five and twenty degrees of longitude, which would seem to produce an immense superficies, but as the coast of the Atlantic runs diagonally from north-east to south-west, and the five lakes of Canada encroach upon it, reaching to the latitude of 40 deg. the absolute superficies will be found to be diminished above one-third.

The late geographer-general of the United States, Thos. Hutchins, * has given a calculation of the number of square miles in the habitable parts of what was once the British dominions in North America, and makes them amount to 1,200,000: but in this Canada was included, although he has been repeatedly quoted as referring to the territory of the United States alone; and it is clear, from late discoveries, that the data upon which he founded his calculation, must have been exceedingly inaccurate. Indeed, he is known to have declared his belief of having greatly mistaken the truth on this subject, which must at all times be attended with many dif-

* Historical Narrative and Topographical Description of Louisiana and West Florida, Philad. 1784.

ficulties, that render every calculation far from accurate.

ASPECT OF THE COUNTRY.

To an European traveller (says Volney) and especially to one accustomed to the naked lands of Egypt, of Asia, and on the borders of the Mediterranean, the prominent feature of the American soil is a wild appearance of almost uninterrupted forest, which displays itself on the shores of the sea, and continues growing thicker and thicker as you proceed into the interior of the country. It is true, on the shores of the Atlantic this continental forest displays some openings, formed by the brackish marshes, and the cultivated fields that are continually extending round the absorbing focus of the cities. It has also considerable vacancies in the western countries, particularly from the Wabash to the Mississippi, toward the borders of lake Erie and the river St. Lawrence, in Kentucky, and in Tennessee; where the nature of the soil, and still more the ancient and annual conflagrations of the savages, have produced spacious deserts, called *prairies*, covered with thick shrubby plants, three or four feet high, exhibiting, during Summer and Autumn, a rich tapestry of verdure and flowers, very seldom to be seen in the bare and naked deserts of Arabia. Throughout the rest of the United States, particularly in the mountainous parts of the interior country, from which the rivers flow in opposite directions, some to the Atlantic

others to the Mississippi, the realms of forest have experienced but slight infringements on their domain.

If the whole of the country could be taken in at one view, we should perceive this forest to be divided into three grand districts, distinguished from each other by the kind, species, and aspect, of the trees that compose it. The species of these trees, according to the remark of the Americans, indicate the nature and qualities of the soil, on which they grow.

The first of these districts, which may be called the southern forest, includes the maritime parts of Virginia, of the two Carolinas, of Georgia, and of the Floridas, and extends, generally speaking, from Chesapeak bay to the river St. Mary, on a soil of gravel and sand, occupying, in breadth, from eighty to a hundred and thirty miles. The whole of this space, covered with pines, firs, larches, cypresses, and other resinous trees, displays a perpetual verdure to the eye, but would not be on this account the less barren, if the sides of the rivers, land deposited by the waters, and marshes, did not intermingle with its veins rendered highly productive by cultivation.

The second district, or middle forest, comprises the hilly part of the Carolinas and Virginia, all Pennsylvania, the south of New York, all Kentucky and the North-Western Territory, as far as the river Wabash. The whole of this extent is filled with the different species of the oak, beech, maple, walnut, sycamore, acacia, mulberry, plum, ash, birch, sassafras, and poplar, on the coasts of the

Atlantic; and, in addition to these, on the west, the cherry-tree, horse-chesnut, papaw, magnolia, sumac, &c. all of which indicate a productive soil. These kinds of forest trees, however, do not anywhere entirely exclude the resinous, which appear scattered throughout all the plains, and collected in clumps on the mountains, even of the lower order, as the chain in Virginia called the South-West: and it is a singular circumstance, that here they deviate from their customary designation of sterility, for the fat and deep red soil of this chain is extremely fertile.

The third district, or northern forest, likewise composed of pines, firs, larches, cedars, cypresses, &c. begins from the confines of the former, covers the north of New York, the interior of Connecticut, and the Massachusetts, gives its name to the state of Vermont, and leaving to the deciduous forest-trees only the banks of the rivers and their alluvions, extends by the way of Canada toward the north, where it soon gives way to the juniper, and the meagre shrubs, thinly scattered among the deserts of the polar circle.

GENERAL CONFIGURATION.

To conceive, properly, the general construction of this vast country, we must acquire a more particular knowledge of the chain of mountains, that forms its predominant feature. This chain begins in Lower Canada, at the mouth of the river St. Lawrence, on its southern bank, where its Capes are called, by seamen, Mounts Notre-Dame and Magdalen. As it proceeds up the river it gradually diverges from it, and separating the waters of its basin toward the north-west from those of New Brunswick, Nova Scotia, and the district of Maine, to the south-east, it traces the frontier of the United States on this side as far as New Hampshire. There it takes a nearly southern direction, penetrating into the interior of Vermont under the name of the Green Mountains, dividing the basin of the river Connecticut from that of lakes Champlain and George; and after having sent off branches on that side, which repel the sources of Hudson's river on the west and north-west, it crosses this river at West Point by a very rugged chain, which has acquired the name of the Highlands. At this place the chain may be said to experience a double interruption: in the first place being intersected by the waters; in the next because it has hitherto consisted of granite, while its continuation is of sandstone. The head of this continuation proceeds higher up the western bank of Hudson's river to the group of the Kaats Kill mountains, and a mass which furnishes the sources of the Delaware. From this place branches off a band of mountainous