

and the 10,000-foot plane, respectively, were computed by the logarithmic tables from the data thus obtained on the centers of reduction, and the corresponding systems of isobars were drawn. There now exists the same general harmony in these isobars as on the sea-level plane, and no further corrections are required. It is to be especially noted that in the plateau region the reductions from sea level to the upper planes were made by the same principles as if it had been a free air column, so that all plateau questions are laid aside.

THE SECOND COMPUTATION OF B_1 , B_2 .

From the B_1 and B_2 charts the pressures belonging to all the stations were interpolated, so that the values of B_1 , B_2 , to be derived by a direct computation from the station data could be compared as a check. Meanwhile the several station reduction tables to the three planes had been completed, and as a final check the three values, B_0 , B_1 , B_2 , were computed and compared with the values derived from the charts, as explained in the first process. The differences between the two sets of values for B_0 , B_1 , B_2 were about the same on the three planes; they average about 0.010 inch, the majority being 0.000 or 0.010 inch, a few 0.020 inch, with occasional larger variations due to errors of computation readily detected, or to a local peculiarity, involving a slight readjustment of the corrections in the station tables. These checks, therefore, involved the three distinct parts of the entire discussion, since the process has been arranged practically in a circuit so as to pass from the station B to B_1 and B_2 by two separate routes, as described. Hence, (1) the processes of eliminating the plateau effect, and of computing the temperature arguments t and θ were successful; (2) the logarithmic tables and the numerical station tables are in agreement; (3) the charts are accurately drawn, and represent the observations with precision.

As the result of this discussion we have prepared charts for the United States and Canada, giving the monthly and annual normals of pressure, temperature, and vapor tension on the sea-level plane, the 3,500-foot plane, and the 10,000-foot plane, also the relative humidity on the sea-level plane, i. e., 130 charts for these data. There are also charts of gradients of temperature in latitude, in longitude, and in altitude; and charts of pressure variations for a few selected hours referred to the mean of 24 hourly observations. Furthermore, the corresponding numerical values are entered in a summary table for all stations on the sea-level plane, about 265 in number; also for all the stations which were in use by the Weather Bureau, either in the United States, Canada, and the West Indies, at the beginning of the year 1900, or which have been opened for service since that date, making about 175 on the upper planes.

It has not been found necessary to revise any of the reductions to sea level since the tables were put in operation on January 1, 1902, showing that they bear the test of practical work at the hands of many observers. The station tables for the upper planes will soon be tried, and an estimate made as to their value in increasing the accuracy of the forecast system of the Weather Bureau.

We conclude with the remark that the pressure observations and computations of the United States have been at last placed upon a strictly scientific basis, and that all the corrections required by theory will be systematically applied in the future, and the entire series from 1873 onwards will be kept strictly homogeneous. We shall, therefore, for the first time be ready to take up the problems of seasonal variation of the weather, the changes of the climate and crop from year to year, and also the true cosmical problems involved in the radiation effects of the sun upon the earth's atmosphere. Even if we do not ourselves succeed in resolving these questions, we shall have left this portion of the data in form for others to make reliable discussions.

THE TERM INDIAN SUMMER.¹

By ALBERT MATTHEWS, Boston, Mass., dated December 15, 1901.

However much we Americans may abuse our ever changing climate,² there is at least one portion of the year upon which we unite in lavishing praise. It need scarcely be said that I allude to that highly indefinite but always delightful period known as the Indian summer. Connected as this season is, both by name and in popular belief, with the aborigines, it would seem as if the name itself must be of some antiquity; yet, so far as my observation goes, it is not until the year 1794 that the expression Indian summer occurs at all, and not until the nineteenth century that it became well established. If the term is, in fact, barely more than a century old, it would again seem as if we ought to be able to trace out its origin with some certainty. Yet such is far from being the case.

It is proper to define the scope of this paper. In a little more than a century there has grown up, as will soon be abundantly proved, a popular belief that there occurs in our autumn a spell of peculiar weather, and to this has been given the name Indian summer. It has been stated that this spell appears in September; that it comes in October; that it occurs in November or not at all; that it takes place in January; that it lasts for three or five days only; that it extends over a period of more than four weeks; that it is peculiar to New England; that it does not occur in New England at all; that it is now more marked than was formerly the case; that in former years it was more pronounced than it is now; that it has at present ceased to occur anywhere. Amid these various and conflicting assertions, it is not easy to arrive at any definite conclusion; but, eliminating the points in regard to which there is divergence of opinion, it is tolerably clear that this supposed spell of peculiar weather is characterized by three special features—by a warmth greater than that of the few days or weeks immediately preceding, by smokiness, and by haziness. It is true that some scientific writers have denied the existence of the increased warmth and have declared that the alleged smokiness is an optical illusion.³ But the popular belief—and it is

¹ During the past ninety years much has been written about this term, but until now no attempt has been made to give its history in detail or to collect and examine critically the explanations that have been advanced as to its origin. The term is not found in Webster's Compendious Dictionary (1806), nor in his American Dictionary (1828), nor in his Letter to the Hon. J. Pickering on the Subject of his Vocabulary (1817); nor in J. Pickering's Vocabulary or Collection of Words and Phrases, which are supposed to be peculiar to the United States (1816); but it was recognized in the 1841 edition of Webster. Its history was first indicated in the Oxford Dictionary (1900), and some of the extracts there quoted are also given in this paper. Lest it be thought that I have taken these without acknowledgement, I may be permitted to add that of the nine extracts previous to 1883 quoted by Dr. Murray all but one (from De Quincey, dated 1830) were furnished by me.

My attention has been directed to the term for more than twelve years, and this paper is based on material collected during that period. I am, however, indebted to Prof. Cleveland Abbe for turning over to me the extracts and correspondence in his possession; to the editors of the Dial, the Journal of American Folk-Lore, the Nation, and the New England Historical and Genealogical Register for inserting queries in their journals; and to various correspondents for replying to appeals for information. Wherever this has been obtained and used, due acknowledgment is made in the notes.

² In 1789 Dr. Rush said: "Perhaps there is but one steady trait in the character of our climate, and that is, it is uniformly variable." (American Museum, 1790, vii, 334.)

Rush was speaking of Pennsylvania, but his remark is equally applicable to the country at large. The sudden and violent changes which occur in our temperature have for three centuries been a favorite subject of comment.

³ In 1833 a Baltimorean wrote: "Again this redness of the air together with the mechanical irritation produced by the denseness of the aerial vapor, excites a painful affection of the eyes—this sensation, connected with the smoky appearance of the sky, induces great numbers of the inhabitants of this country to believe that the Indian summer consists of a smoky state of the air produced by burning the vegetable decidua which are collected together in the fall season for this purpose, or as

with this only that I am concerned—appears to be such as I have described. I do not enter into the question whether this supposed spell of peculiar weather does actually occur, or whether it is rather a delusion like the popular belief that the weather is affected by the changes in the moon.⁴ I merely take the term Indian summer as a literary term which gives expression to the popular belief, and my concern is solely with the history of this literary term and with the explanations which have been advanced to account for it.

The statement already made that the term Indian summer itself is unknown until 1794,⁵ and the further statement that allusions to the Indian-summer season under any name whatsoever appear to be unknown until late in the eighteenth century, will doubtless cause surprise and arouse opposition; for they are in direct conflict with popular belief and with many assertions to the contrary. As long ago as 1804, C. B. Brown declared that the season was "predicted by the natives to the first emigrants." In 1809 Dr. Ricketson said that the name Indian summer "had long been known in this country." In 1842 J. F. Watson asserted that the season was so called by "the white inhabitants, in early times." In 1872 W. Flagge spoke of the "peculiar phenomena described by some of our early writers both in prose and verse." In 1873 T. B. Maury declared that "the first explorers of America noted the Indian summer."⁶ In 1887 Bela Hubbard stated that the season was spoken of by "early New England writers."⁷

sonie will have it the firing of the neighboring mountains. This appearance of actual smoke is however an optical illusion, produced by the foggy appearance of the air, and which seems to find confirmation by the great irritation of the visual organs, effected by the excess of red rays, etc." (*American Journal of Science*, 1835, xxvii, 147.)

In 1835 Dr. L. Foot wrote: "As to the increased temperature, during Indian summer, we can not agree to it. From the document we have quoted, (*Meteorological register*), it appears, that the mean temperature for November, is somewhat lower than that of October. It is from the quiet placid state of the atmosphere, that some are led to suppose that it is actually warmer. But he who keeps an accurate record of the thermometer will find it is a mistake." (*Ibid.*, 1836, xxx, 12.)

⁴Sir Robert S. Ball writes: "We owe much to the moon. We hope, indeed, in a subsequent chapter to point out that we owe a great deal more to her than was formerly suspected; but there is one widely-credited myth about the moon which must be regarded as devoid of real foundation. The idea that the moon and the weather are connected has no doubt been entertained by high authority, but careful comparison has shown that there is no definite connection between the two." (*Story of the Heavens*, 1886, pp. 59, 60.)

⁵By this I mean that no example before 1794 has ever been adduced. That the term was in use earlier, is possible; but if so, the fact has not yet been discovered.

⁶Mr. Maury's words are: "The first explorers of America noted the Indian summer, and ever since it has excited the poetic fancy as well as the philosophic inquiry of many minds. Palfrey, the distinguished historian of New England, and Thomas Jefferson, in his *History of Virginia*, have not forgotten it is one of the most fascinating features of American climate."

Mr. Maury then goes on to quote from Palfrey a passage which will be given later in our text (under date of 1859), and observes:

"This testimony, which was borne by other colonial annalists, agrees with the present facts, and shows the identity of this meteorologic wonder with that of the 'Old Men's Summer' of Germany, 'St. Martin's' of France, and a similar one, which has been remarked by one or two historians, of Mexico."

This remark conveys the impression either that Palfrey was a "colonial annalist," or that he is alluding to colonial times. Palfrey wrote only a little more than forty years ago, he is discussing the climate of his own time, and what he says naturally "agrees with present facts" because he is dealing with present facts.

Jefferson, in his notes on Virginia (1782), to which Mr. Maury doubtless alludes, devoted Query VII to climate (pp. 134-151, in Ford's edition of Jefferson's writings, iii, 177-187). Mr. Maury's statement that Jefferson had "not forgotten * * * one of the most fascinating features of American climate" is very wide of the mark, inasmuch as Jefferson's chapter does not contain a syllable that by any ingenuity can be twisted into an allusion to the Indian summer. A little later Mr. Maury quotes an article by "an early writer," but this article was written in 1833 and printed in 1835. Finally, the German name for the season is not "Old Men's Summer," but "Altweiber sommer." Mr. Maury's article will be found in *Harper's Magazine* for December, 1873, xlvi, 89-98.

⁷It is worth while to give Mr. Hubbard's statement in full: "Early

It is thus seen that for nearly a century people have been asserting that the term Indian summer was known to and employed by our early writers.⁸ But it will be observed that no one has yet placed his finger on a single passage where the term occurs in early writings. Those who make a positive statement are bound to adduce evidence in its support, and their failure to do so may be taken as an indication that the required evidence does not exist. On the other hand, it is proverbially difficult to prove a negative, and all I can be expected to do in the circumstances is to give specific references to passages in which there are allusions to climate, so that the reader can at his leisure, if so disposed, ascertain for himself exactly what writers on America have had to say on the subject.

Of the seventeenth century writers, some make no allusion at all to climate, while others occasionally indulge in an observation about the weather, but can not be said to discuss climate.⁹ In general, however, at least some brief remark about climate—or, as many authors were fond of calling it, the "air"—was thought proper, and the works in which such discussions occur are numerous.¹⁰ In the eighteenth century

New England writers speak of this serene portion of autumn as peculiar to America, hence the name they gave it. But we look in vain for any recognition of it in pages not more than half a century old" (*Memorials of a Half-Century*, p. 558).

If Mr. Hubbard had met with no recognition of the term before 1837, he certainly could not have found it mentioned by early New England writers. On the other hand, if he had actually seen the term used by early New England writers, he must have encountered it before 1837. In short, Mr. Hubbard's second sentence flatly contradicts his first.

⁸These erroneous assertions are doubtless due to two causes: First, to ignorance of American writings of the seventeenth and eighteenth centuries; and secondly, to that looseness of statement to which we are all only too prone. An admirable illustration of the same process is furnished by a passage in one of Cooper's novels. The most popular theory in regard to the derivation of the word Yankee is that Yankee is a corruption of Yengees, itself a corrupt pronunciation by the Indians of the word English. Alluding to this theory, Cooper remarked in 1841:

"Nearly all the old writers, who speak of the Indians first known to the Colonists, make them pronounce the word 'English' as 'Yengeese.'" (*The Deerslayer*, i, 230, note.)

It is not often that one is able to point to the first printed appearance of a word in the language, but in the present instance this can be done. The word Yengees was first used, and the Yengees theory was first advanced, by the Rev. John Heckwelder in his *Account of the History, Manners, and Customs of the Indian Nations*, a work published in 1819. The word Yengees, then, at the time Cooper declared that it was known to "nearly all the old writers," had been before the world precisely twenty-two years.

⁹Among such works seem to be the following: Capt. J. Smith, *True Relation*, 1608; Capt. J. Smith, *Description of New England*, 1616; Capt. J. Smith, *New England's Trials*, 1620; T. Morton, *New English Canaan*, 1637; Capt. E. Johnson, *Wonder-Working Providence*, 1654; G. Alsop, *Character of the Province of Mary-Land*, 1666; N. Morton, *New England's Memorial*, 1669; J. Josselyn, *New-England's Rarities Discovered*, 1672; J. Duntun, *Letters from New England*, written in 1686.

¹⁰Among these are the following: 1609, Nova Britannia, p. 11 (*Force's Tracts and Other Papers*, i); 1612, Capt. J. Smith, *Map of Virginia*, Works (*Arber*), pp. 47, 48, 344; 1621, E. Winslow, in *Mourt's Relation*, 1622, p. 62; 1624, E. Winslow, *Good News from New England*, in *Arber's Story of the Pilgrim Fathers*, 1897, pp. 593, 594; 1629, F. Higginson, *New-England's Plantation*, 1 *Massachusetts Historical Collections*, i, 120, 121; 1630, *Planters Plea*, p. 13, (*Force's Tracts and Other Papers*, ii); 1634, W. Wood, *New England's Prospect*, 1665, pp. 3-11; 1642, T. Lechford, *Plain Dealing*, 1867, p. 114; 1643, R. Williams, *Key into the Language of America*, pp. 82-85; 1644, J. Megapolensis, in *E. Hazard's Historical Collections*, 1792, i, 519, 520; 1666, *Brief Description of the Province of Carolina*, in B. R. Carroll's *Historical Collections of South Carolina*, 1836, ii, 13, 14; 1670, D. Denton, *Brief Description of New York*, 1845, pp. 16, 18, 19; 1674, J. Josselyn, *Account of Two Voyages to New-England*, pp. 54-58; 1680, W. Hubbard, *General History of New England*, 1815, pp. 19-21; 1682, T. A., *Carolina*, in B. R. Carroll's *Historical Collections of South Carolina*, ii, 62, 63; 1682, *Account of the Province of Carolina*, in Carroll, ii, 23, 25, 26; 1685, T. Budd, *Good Order Established in Pensylvania & New-Jersey*, 1865, p. 29; 1688, J. Clayton, in *Philosophical Transactions*, 1693, xvii, 784-789; 1695, J. Miller, *Description of the Province and City of New York*, 1848, pp. 7, 8; 1698, G. Thomas, *Historical and Geographical Account of the Province and Country of Pensylvania*, pp. 7, 8; 1698, G. Thomas, *Historical Description of the Province and Country of West-New-Jersey*, p. 20; *New York Colonial Documents*, i, 14, 40, 179, 180, 275,

there were also some writings from which allusions to climate were absent,¹¹ but, as a rule, the allusions were frequent.¹²

276, 612, iv. 274, ix, 30; Jesuit Relations and Allied Documents, ii. 201, iii, 47-61, xxii, 41, xxxviii, 221-227, xlili, 261. In such of the Jesuit Relations as I have myself read there is no allusion to the Indian summer; and Mr. R. G. Thwaites, the editor of that great work, writes me that "the term 'Indian Summer' does not appear, so far as I can see, to have been used in Canada during the period covered by the Jesuit documents."

¹¹Among these are the following: State of Trade in the Northern Colonies considered; with * * * a particular Description of Nova Scotia, 1748; L. Evans, Analysis of a General Map of the Middle British Colonies, 1755; W. Smith, History of the Province of New-York, 1757; T. Hutchinson, History of Massachusetts, 1764, 1767, 1780; S. Smith, History of the Colony of Nova-Cæsaria, or New-Jersey, 1765; J. Bartram, Journal, 1765-1766, in W. Stork's Account of East-Florida; J. Carver, Travels through the Interior Parts of North America in the Years 1766, 1767, and 1768; D. Ramsay, History of the Revolution of South-Carolina, 1785; Voyages de M. le Marquis de Chastellux dans l'Amérique Septentrionale Dans les Années 1780, 1781, & 1782 (published in 1786); J. Lorimer, Account of the Surveys of Florida, 1790; W. Bartram, Travels through North and South Carolina, Georgia, East and West Florida, 1793; J. Drayton, Letters written during a Tour through the Northern and Eastern States of America, 1794; B. Trumbull, Complete History of Connecticut, 1797, 1818; J. A. Graham, Descriptive Sketch of the Present State of Vermont, 1797; Tour through Upper and Lower Canada, 1799; Hannah Adams, Summary History of New-England, 1799.

¹²Among these are the following: 1701, C. Wooley, A two Years Journal in New-York, 1860, pp. 22-26; 1702, T. C. Holm, Description of the Province of New Sweden, 1834, pp. 55-60; 1705, R. Beverley, History and Present State of Virginia, Book iv, pp. 59-68; 1707, J. Archdale, New Description of that Fertile and Pleasant Province of Carolina, in B. R. Carroll's Historical Collections of South Carolina, ii, 96; 1721, Charlevoix, Histoire et Description Générale de la Nouvelle France, 1744, v, 241-250; 1733, New and Accurate Account of the Provinces of South Carolina and Georgia, in Collections of the Georgia Historical Society, i, 49, 50; 1735, New Voyage to Georgia, in Collections of the Georgia Historical Society, ii, 41; 1741, Impartial Inquiry into the State and Utility of the Province of Georgia, in Collections of the Georgia Historical Society, i, 157, 518; 1744, A. Dobbs, Account of the Countries adjoining to the Hudson's Bay, pp. 2, 3, 4, 11-18, 49, 52, 54, 62, 63, 65, 67, 68; 1748, H. Ellis, Voyage to Hudson's Bay, pp. 171-173; 1748-49, P. Kalm, Travels into North America, translated by J. R. Forster, 1770, i, 46, 47, 104, 106-112, 266, 267, 306, 307, 361, 383, 384, ii, 102, 103, 127-130, 188, 189, 242-244, 252, 253, 318-352, iii, 75-77, 152, 246-252; 1749, Geographical History of Nova Scotia, p. 107; 1749, Short State of the Countries and Trade of North America, Claimed by the Hudson's Bay Company, pp. 11-14, 29-44; 1752, J. MacSparran, America Dissected, 1753, pp. 2, 9, 39, 40; 1752, J. Robson, Account of Six Years Residence in Hudson's Bay, p. 45; 1761, Description of South-Carolina, pp. 11-29; 1763, Short Description of South Carolina, in B. R. Carroll's Historical Collections of South Carolina, ii, 471-478; 1766, W. Stork, Account of East-Florida, pp. 39-43; 1768, Histoire Naturelle et Politique de la Pensylvanie * * * Traduit de l'Allemand, pp. 39-45, 320-353; 1769, J. Knox, Historical Journal of the Campaigns in North-America for the Years 1757, 1758, 1759, and 1760, ii, 463, 463; 1769, A. Cluny, American Traveller, pp. 33, 36, 56, 103; 1770, H. Williamson, Attempt to account for the Change in Climate, which has been observed in the Middle Colonies in North-America, in Transactions of the American Philosophical Society, i, 336-345; 1775, A. Burnaby, Travels through the Middle Settlements, in North America, in the Years 1759, and 1760, pp. 8, 9, 67, 79, 100, 108, 120, 135, 151, 155; 1776, L. Chalmers, Account of the Weather and Diseases of South-Carolina, i, pp. 8-28, 33, 34, 41-46, 220, 221, ii, 55-57, 200; 1778, T. Hutchins, Topographical Description of Virginia, Pennsylvania, Maryland, and North Carolina, pp. 13, 15; 1779, A. Hewatt, Historical Account of the Rise and Progress of the Colonies of South Carolina and Georgia, i, 79, ii, 134-138; 1781, S. Peters, General History of Connecticut, pp. 237-241; 1782, T. Jefferson, Notes on Virginia, Writings (Ford), iii, 177-187; 1784, J. Filson, Discovery, Settlement And present State of Kentucke, pp. 21, 22; 1784, J. F. D. Smyth, Tour in the United States of America, i, 35, 36, 147, 148, ii, 71, 72, 402-404; 1784, T. Hutchins, Historical Narrative and Topographical Description of Louisiana, and West-Florida, pp. 27, 28, 49; 1786, S. Hollingsworth, Account of the Present State of Nova Scotia, pp. 13-17; 1789, B. Rush, Account of the Climate of Pennsylvania, in American Museum, vi, 25-27, 250-254, vii, 333-340; 1789, J. Morse, American Geography, pp. 163, 197, 202, 214, 310, 345, 351, 405, 423, 445, 446, 470, 475, 476, 477, 478; 1790, E. Umfreville, Present State of Hudson's Bay, pp. 11-26, 155-157; 1791, J. P. Brissot de Warville, Nouveau Voyage dans les États-Unis de l'Amérique Septentrionale, Fait en 1788, i, 374-376, ii, 118-129; 1792, G. Cartwright, Journal of Transactions and Events, during a Residence of nearly Sixteen Years on the Coast of Labrador, iii, 232; 1792, J. Belknap, History of New Hampshire, iii, 17-30; 1794, S. Williams, History of Vermont, pp. 42-65; 1795, J. Sullivan, History of the District of Maine, pp. 6-9; 1795, S. Hearne, Journey from the Prince of Wales's Fort in Hudson's Bay, to the Northern Ocean, Undertaken * * * In the years

The voyages of the early explorers to America were followed with interest in England, but when this country became permanently settled and the colonies firmly established then public attention in England was diverted. The ignorance and the neglect shown by the mother country, however advantageous they may have been politically in permitting the colonists to work out their own institutions, wounded the *amour propre* of the Americans, and in the eighteenth century became the subject of animadversion. In a letter written from England July 7, 1773, Franklin said:

"The great defect here is, in all sorts of people, a want of attention to what passes in such remote countries as America; an unwillingness to read anything about them if it appears a little lengthy, and a disposition to postpone the consideration even of the things they know they must at last consider, that so they may have time for what more immediately concerns them, and with all, enjoy their amusements and be undisturbed in the universal dissipation."¹³

No sooner, however, had the colonies achieved their independence, than the new nation at once became the object of great interest to Europeans in general and to Englishmen in particular. Over they came in large numbers to view our country, and to study our political, social, and moral conditions; and in the last quarter of the eighteenth century began that stream of British and foreign travelers, each with his book about "the States," which has never ceased to flow. No less remarkable was the change in ourselves. Of political activity there had never been a lack in this country, but hardly had the Revolutionary war come to a close than a great stimulus was given to historical studies, and book after book devoted to American history issued from the press. Nor was this activity confined to historical studies alone, but manifested itself in many lines of intellectual research.¹⁴ Now in the histories and books of travel by and about ourselves, there was scarcely a subject which elicited greater interest than that of climate. Discussions became more frequent and more elaborate, and a favorite topic for debate was the alleged change in climate which had taken place in America; some stoutly maintaining that this change had been toward mildness, while others as strenuously urged the opposite view.¹⁵ It so happens, then,

1769, 1770, 1771, and 1772, pp. 2, 7, 27, 203, 204, 206; 1795, T. Cooper, Some Information Respecting America (second edition), pp. 9, 10, 11, 16, 17, 20, 24; 1799, I. Weld, Jr., Travels through the States of North America and the Provinces of Upper and Lower Canada during the years 1795, 1796, and 1797 (second edition), i, 96, 97, 112, 247-252, 389, 390, 398; 1796, W. Winterbotham, Historical, Geographical, Commercial, and Philosophical View of the United States of America, i, 79-83; R. Proud, History of Pennsylvania, ii, 238-242; 1798, I. Allen, Natural and Political History of the State of Vermont, pp. 9-12; 1799, La Rochefoucault Liancourt, Voyage dans les États-Unis d'Amérique, Fait en 1795, 1796 et 1797, iv, 50-56, 176, 177, 192, viii, 117-125; 1799, N. Webster, Dissertation on the Supposed Change in the Temperature of Winter, in Memoirs of the Connecticut Academy of Arts and Sciences, 1810, i, 1-68 (also in Webster's Collection of Papers on Political, Literary, and Moral Subjects, 1843, pp. 119-162); 1800, E. Oliphant, History of North America and its United States, pp. 17, 20, 21, 108, 109, 197, 198, 298, 299, 324, 346, 378; New York Colonial Documents, viii, 435, x, 230; Transactions of the American Philosophical Society, i, 32, 322, 336-345, ii, 118-158, iv, 224-226, vi, 9-23, 43-55; Memoirs of the American Academy of Arts and Sciences, i, 336-371, ii, 65-92; American Museum, v, 151, 152, 229-233, 244, 245, vi, 25-27, 250-254, vii, 36-39, 333-340, viii, 149, 195, 247, x, 159, 207, 259, xii, 191, 255; Medical Repository, i, 99-104, 245-247, 373-375, 530, ii, 101-103, 205-207, 319-321, 376, 377, 429, 430, vi, 9-16. Some of the magazines contained monthly "meteorological observations."

¹³Works (Bigelow), v, 190.

¹⁴As proof of this there is need only to mention the founding of the Massachusetts Historical Society; the Transactions of the American Philosophical Society, and the Memoirs of the American Academy of Arts and Sciences; the poems of Barlow, Dwight, and Freneau; the novels of Charles Brockden Brown; the publication of monthly magazines like the American Museum, the Boston Magazine, the Columbian Magazine, the Massachusetts Magazine, the New York Magazine; a special journal such as the Medical Repository; and the formation of local societies of historical, antiquarian, or literary nature.

¹⁵A layman will wisely refrain from striking a balance between



that just before 1800 the literature of the subject of climate had reached more than respectable proportions, and the places where one would naturally expect to find allusions to the Indian-summer season are somewhat embarrassing from their number. It is pertinent to our subject to make some extracts from books published shortly before 1800, and these may well begin with three passages of an earlier date. In 1705 R. Beverly, writing of Virginia, said: "But the spring and fall afford as pleasant weather as Mahomet promis'd in his Paradise."¹⁶

Describing the climate of New York, Cadwallader Colden wrote in 1723: "The fall in this country (and all over the main of America) is most agreeable from the beginning of September to the middle of November. The weather being mild and dry. The Skie always serene, and the People healthy."¹⁷

Again, in February, 1737-38, the same writer observed: "The fall of the leaf is the most pleasant season in this country. from the beginning of September to december we have moderate weather with a serene sky, the horizon being seldom cover'd with clouds in that time."¹⁸

In 1775 Governor Pownall wrote: "The Climate of the Continent at large, or rather of that Portion of North America which is contained within the Limits of this Map, may be thus stated.

"Its Seasons are Summer, Autumn, or what the Americans more expressively call The Fall, and Winter. The Transition from the Locking up of all Vegetation in Winter to the sudden Burst of it again to Life at Beginning of the Summer, excludes the progressive Season which in the more moderate Climate of Europe we call Spring.

"The Season begins to break soon after the Fall of the Leaf, and temporary cold Rains and Sleetings of Snow fall in November, the North West Winds begin, and towards Christmas Winter in all its Rigour sets in. * * * About the Middle of September the Mornings and Evenings begin to grow cool, and from that time to the Beginning of the Winter Season it is the Climate of Paradise."¹⁹

Of the climate of Pennsylvania, Dr. Benjamin Rush remarked in 1799: "The autumn is the most agreeable season of the year in Pennsylvania. The cool evenings and mornings, which generally begin about the first week in September, are succeeded by a moderate temperature of the air during the day. This species of the weather continues with an increase of cold scarcely perceptible, till the middle of October, when the autumn is closed by rain, which sometimes falls in such quantities as to produce destructive freshets in the rivers and creeks, and sometimes descends in gentle showers, which continue opposing arguments, but he may be permitted to think that a remark made a half century ago by John C. Gray is very much to the point, and applies as well to the country at large as to New England. "It has been a general, and is perhaps still a prevailing impression among the inhabitants of New England, that our climate is much warmer now than two hundred years since. This position has been distinctly assumed by some of our best historians and naturalists, and many ingenious reasons have been given for the change. The explanation which seems to have met with most favor is that which ascribes the alleged softening of the winter's cold to the clearing away of large tracts of forest trees. It is believed, however, that the position itself may be fairly called in question, and that philosophers, by a mistake not unprecedented in the observers of natural phenomena, have employed themselves much more diligently in accounting for a striking phenomenon which they have assumed to exist, than in collecting precise evidence to determine the fact of such existence." (In First Annual Report of the Secretary of the Massachusetts Board of Agriculture, 1854, p. 147.)

¹⁶History and Present State of Virginia, Book iv, p. 63.

¹⁷New York Colonial Documents, v, 692.

¹⁸Ibid., vi, 123.

¹⁹Topographical Description of such Parts of North America as are contained in the (annexed) Map of the Middle British Colonies, 1776, p. 44. Pownall also says that "the Season of hazy, foggy, and rainy Squalls from North East begins towards the latter End of April in some Parts, towards the Beginning of May in others;" but does not allude to smoke or haze in the autumn.

with occasional interruptions by a few fair days, for two or three weeks. These rains are the harbingers of the winter, and the Indians have long ago taught the inhabitants of Pennsylvania, that the degrees of cold during the winter, are in proportion to the quantity of rain which falls during the autumn."²⁰

In 1792 J. Belknap said of New Hampshire: "Light frosts begin in September; in October they are more frequent, and by the end of that month, ice is made in small collections of water; but the weather is mostly serene. November is a variable month, alternately wet and dry."²¹

In 1794 S. Williams remarked of Vermont: "From the beginning of September until the middle of October we have commonly the most agreeable season, with moderate westerly winds, and a clear sky. The latter part of October and November, are generally cold, wet, and uncomfortable; attended with frequent rains, some snow and high winds."²²

In 1796 I. Weld, Jr., an English traveler, observed: "The months of October and November are the most agreeable in the middle and southern states, of any in the year; the changes in the weather are then less frequent, and for the most part the air is temperate and the sky serene."²³

In 1798 R. Proud contented himself with remarking that in Pennsylvania "the autumn" is "long and mild."²⁴

To continue these extracts and references, in an attempt to be exhaustive, would be both tedious and unnecessary. Those previously given cover every portion of North America into which English speaking people had penetrated before 1800, either as explorers, travelers, or settlers. The present writer finds it difficult to detect in these passages any deeper meaning than the simple statement that our weather in autumn is pleasant. Of increased warmth, of smokiness, of haze,²⁵ three features which, as already remarked, are in the popular mind the distinguishing characteristics of the Indian summer, of these, there is not so much as a hint.²⁶ I have dwelt at some length upon the writers of the period just before 1800, because it was at this very time that the term Indian summer came into use and the alleged phenomena of the Indian-summer season came to be noticed. The fact, therefore, that so many writers previous to 1800 neither employed the term nor recognized the season, is singular, significant, and noteworthy.²⁷

While at Le Boëuf, a few miles from the present city of Erie, Pa., Major Ebenezer Denny made this entry in his Jour-

²⁰Account of the Climate of Pennsylvania, in American Museum, vi, 252. This Account was issued in a pamphlet in 1789, and was reprinted in the American Museum, vi, 25-27, 250-254, vii, 333-340.

²¹History of New Hampshire, iii, 16. Belknap also says: "From the middle of September the mornings and evenings begin to be so chilly, that a small fire becomes a desirable companion. In October the weather requires one to be kept more steadily; from the time that the autumnal rains come on in November it is invariably necessary to the end of March."

²²Natural and Civil History of Vermont, p. 55. It will not escape notice that, according to Rush, Belknap, and Williams, the months of October and November were regarded as rainy months, or when rain might be expected.

²³Travels, 1799, second edition, i, 96.

²⁴History of Pennsylvania, ii, 238.

²⁵Allusions to smoke or haze before 1800 are rare in the extreme. In 1798 R. Proud, speaking of the northwesterly winds, said:

"These winds seldom fail to produce a clear sky, and a remarkable sharp cold, even, in every season of the year; as those from the southwesterly are distinguished for producing haziness and warmth or heat in summer. But the eastern winds are frequent, and as much observed to bring on haziness, fogs, or clouds, and wet or falling weather, as the former are, for their respective cold and heat, with their peculiar dryness." (History of Pennsylvania, ii, 238, 239.)

There is here nothing about haziness being peculiar to the autumn months.

²⁶Quite possibly these passages will strike a meteorologist in an altogether different light; but I of course speak as a layman, and with the popular belief in mind.

²⁷For many years after 1800 the discussions on climate continued with unabated zeal. Among works between 1800 and 1820 in which neither the term nor allusions to the Indian summer occur, are the following:

nal on October 13, 1794: "Pleasant weather. The Indian summer here. Frosty nights."²⁸

Writing from Hartford, Conn., June 7, 1798, Dr. Mason F. Cogswell, said: "The weather here has been somewhat peculiar. I will endeavour to sketch some of the most prominent features of the season. Our first winter month (December) was uniformly cold, and most of it severely so; and, as the ground was wholly uncovered with snow, the frost penetrated to an unusual depth in the earth, generally from two to three feet. About the beginning of January the weather softened considerably, and continued mild for several days. Most people supposed the Indian Summer was approaching (a week or fortnight of warm weather, which generally takes place about the middle of January), but, instead of this, there succeeded to these pleasant days a delightful fall of snow, about a foot in depth, which was bound down by an incrustation of hail, and prevented from blowing in heaps by the winds which followed."²⁹

1801. A. Mackenzie, Voyage from Montreal, on the River St. Lawrence, through the Continent of North America, to the Frozen and Pacific Oceans, in the Years 1789 and 1793, pp. 127, 128, 132, 379, 404-406; 1802, J. Drayton, View of South-Carolina, pp. 16-27; 1804, R. Munro, Description of the Genesee Country, pp. 10, 11; 1804, Mémoires sur la Louisiane et la Nouvelle-Orléans, pp. 3, 4; 1807, C. C. Robin, Voyages dans l'Intérieur de Louisiane, iii, 269-274; 1807, G. Heriot, Travels through the Canadas, pp. 30, 261-266; 1807, J. Mease, Geological Account of the United States, pp. 61-118; 1809, H. Gray, Letters from Canada, pp. 243-256, 282-321; 1809, Essay on the Climate of the United States, Philadelphia; 1809, D. Ramsay, History of South-Carolina, ii, 49-69; 1810, J. Lambert, Travels through Lower Canada and the United States of North America, i, 110-132, ii, 350, 351, 463-480; 1810, F. Cuming, Sketches of a Tour to the Western Country, pp. 321, 380, 394, 395; 1811, H. Williamson, Observations of the Climate in different Parts of America, pp. 1-30; 1812, H. Williamson, History of North Carolina, ii, 173-211; 1812, J. Melish, Travels in the United States of America, i, 76, 77, 98, 102, 114, 124, 135, 145, 172, 173, 179, 188, 189, 207, 235, 260, 280, 281, 290, ii, 42, 190, 192, 203, 237, 278; 1813, D. W. Smyth, Short Topographical Description of His Majesty's Province of Upper Canada in North America: 1813, R. Dickinson, Geographical and Statistical View of Massachusetts Proper, pp. 13-23; 1814, H. M. Brackenridge, Views of Louisiana, pp. 31, 32, 111, 112; 1815, J. Bouchette, Topographical Description of the Province of Lower Canada, pp. 57-61, 595; 1816, J. Whipple, History of Acadie, Penobscot Bay and River, pp. 5-8; 1816, M. Greenleaf, Statistical View of the District of Maine, pp. 19-29; 1817, W. Darby, Geographical Description of the State of Louisiana, the Southern Part of the State of Mississippi, and Territory of Alabama, pp. 43, 44, 243-280; 1817, J. Sansom, Sketches of Lower Canada, pp. 129-133; 1818, W. Tudor, Letters on the Eastern States, pp. 258-266; 1818, W. Darby, Emigrant's Guide to the Western and Southwestern States and Territories, pp. 230-250; 1819, C. B. Johnson, Letters from the British Settlement in Pennsylvania, pp. 98-101; 1819, D. Thomas, Travels through the Western Country in the Summer of 1816, pp. 56-59, 197-203; 1819, E. Mackenzie, Historical, Topographical, and Descriptive View of the United States, pp. 39, 40, 536-549; 1819, J. C. Pease and J. M. Niles, Gazetteer of the States of Connecticut and Rhode Island, pp. 7, 8, 308; 1820, C. Stuart, Emigrant's Guide to Upper Canada, pp. 29-33; Memoirs of the American Academy of Arts and Sciences, iii, 107-121, 361-412, iv, 361-392; Medical Repository, Second Hexade, iii, 349-365, v, 363-374, vi, 23-45; Monthly Anthology, ix, 25-31; General Repository, iv, 313-356. It is useless to continue these references after 1820, as by that time the term Indian summer had become well established.

²⁸Military Journal, 1859, p. 198. The Journal was also printed, together with another work, in 1860, and the passage will be found at page 402 of that edition. Major Denny was born in 1761, at Carlisle, Pa., and appears to have spent most of his life in that State. In March, 1794, he was sent by Governor Mifflin to establish a post at Presqu' Isle, Lake Erie. On the day when he made the above entry in his journal he was at Le Bœuf, on French Creek, about ten or twelve miles in a southerly direction from Presqu' Isle. The latter name is not uncommon in the region of the Great Lakes, but the place so called by Denny is now the city of Erie, though the old name is preserved in Presque Isle Bay.

²⁹In Medical Repository, ii, 282. About the same time William Priest, an Englishman, made a remark worth noting. Writing from New York September 18, 1797, he said: "My Jersey intelligence was too true; but the disorder [yellow fever] is chiefly confined to one part of the city, and is effectually prevented from spreading at present by the northwest wind, which is set in this morning with uncommon severity; a circumstance which sometimes happens at this season of the year, and is of long continuance. This kind of weather the Indians call *hal'* winter. Unfortunately for the Philadelphians, they had no half winter in the year 1793." (Travels in the United States of America, 1802, pp. 150, 151).

Volney, the noted French traveler, who visited this country between 1795 and 1798, remarked in 1803: "Une seconde crise arrive du 15 au 20 octobre, c'est-à-dire, quand le soleil s'est déjà avancé de 20 à 25 degrés au sud de l'équateur.

* * * * *

Les vents de nord-est et de nord-ouest deviennent plus fréquens; le sud-ouest perd de sa vigueur et décline vers l'ouest; l'air devient plus frais, mais le ciel reste clair; le soleil est toujours chaud au milieu du jour, et vers novembre, reparait une série de beaux jours, appelés l'été *sauvage* (Indian-summer): c'est ce que nous appelons en France l'été de la Saint-Martin; mais il est devenu si rare et si court, que nous n'en parlons plus que par tradition."³⁰

Thomas Ashe, an Englishman who traveled in this country, said, under date of July, 1806: "In regard to the climate, the winter is mild; snow and frost seldom continue above three or four weeks; the spring is dry, interrupted only by the necessary refreshment of occasional showers; the summer is not violently hot, being tempered by a perpetual breeze; and the autumn is distinguished by the name of the Second Summer. Controuled by these facts the public cry is that Kentucky *must* be healthy, that, enjoying such a climate, it can not be otherwise, and that no country of the globe can boast of such salubrity and such an atmosphere."³¹

In 1809 Dr. Shadrach Ricketson, alluding to New York, observed: "The two last autumnal months exhibited nothing very unusual, being attended with frequent alternations of frost and rain. In the last was a course of dry, smoky weather, long known in this country by the name of 'Indian summer.'"³²

In 1813 H. G. Spafford wrote: "The Indian-Summer, a peculiar and elegant feature of an American autumn, in connection with the splendid and rich variety of tint assumed by the forest foliage at that season, commences usually about the last of October, and extends into December with occasional interruptions by eastern storms."³³

With this compare the extract from Dr. Rush, already quoted under date of 1789.

³⁰Tableau du Climat et du Sol des États-Unis d'Amérique, i, 292, 293. Volney's book was twice translated into English; by an Englishman, at London, in 1804, and by C. B. Brown, at Philadelphia, in 1804. It would be interesting to know exactly where Volney found the term in this country. He visited almost all sections, but does not say where, when, or how often he heard it. It has been urged that Volney's employment of the expression implies a wide use in this country. On the other hand, it seems to the present writer that the only safe conclusion to be drawn from Volney's remarks is that he heard the term somewhere in this country, but not necessarily in every part through which he traveled. The point I wish to make may be illustrated by an extract from the Journal of Jacob Fowler, edited by the late Dr. Elliott Coues in 1898. Under date of December 17, 1821, Fowler writes: "The Weather very much moderated Having much the appearance of the Indian Summer." (Page 65.)

Fowler was then on the Arkansas River, in what is now the State of Colorado. Can we therefore conclude that Fowler heard the term used in that region? Most certainly we can not, for the obvious reason that at that time there were no English inhabitants in that region at all. In short, Fowler, who was born in New York and who had, previous to the time of his Journal, lived in Kentucky, took the term to the West with him.

It has also been urged, in conversation with the writer, that the infrequency with which the expression is met with before 1800 indicates not so much its rarity as the fact that it was so common as not to excite comment. But surely we can not assume the existence of a word merely because no one employs it. Besides, after 1820, by which time the term Indian summer had certainly become common, its commonness did not prevent people from using it or commenting upon it. Recognizing to the full that negative evidence must be received with caution, yet, in view of the complete silence of native historians before 1800 and of the complete silence of all writers, native or foreign, before 1794, I see no escape from the conclusion that the burden of proof lies on those who maintain that Indian summer was a term common before 1800 or known at all before 1794.

³¹Travels in America, Performed in 1806 (1808), ii, 153. My attention was called to this passage by Mr. E. P. Merritt of Boston.

³²Observations on the Weather and Diseases in the Autumn of 1808, in the City of New York, in Medical Repository, Second Hexade, vi, 187.

³³Gazetteer of the State of New York, p. 14. In the Oxford Dictionary, Dr. Murray gives no earlier example of "elegant" in its vulgar use

In 1815 Dr. D. Drake remarked:

"INDIAN SUMMER.

"In the autumn of every year, we have a period to which this appellation is affixed. It generally succeeds to rain or snow and severe frost; beginning in October or November, and continuing for two or three weeks, with an occasional storm. But the atmosphere is, for the most part, dry, serene, and smoky, through which the sun and moon exhibit in the morning and evening a face of darkened crimson. The verdure of the forest fades away, or passes into the countless varieties of brown, red, and yellow, which give to the surrounding scenery a dull and sombre aspect. The occurrence of rain, with a north-west wind at length suddenly dispels the gloom, strips the wood of its remaining foliage, and introduces winter, with a transparent and cheering atmosphere. The effect of this peculiar atmosphere on hypochondriacs, tho' less in degree, is similar to that produced by the November fogs of Great Britain."³⁴

It sounds grotesque at the present day to find the Indian-summer season associated with gloom, and to hear that it has an unhappy effect upon hypochondriacs.

In 1817 John Bradbury, an English traveler, speaking of the Missouri Territory and of the Ohio River, observed: "About the beginning or middle of October the Indian summer³⁵ commences, and is immediately known by the change which takes place in the atmosphere, as it now becomes hazy, or what they term smoky. This gives to the sun a red appearance and takes away the glare of light, so that all the day, except a few hours about noon, he may be looked at with the naked eye without pain: the air is perfectly quiescent and all is stillness, as if nature, after her exertions during the summer, were now at rest. The winters are sharp, but it may be remarked that less snow falls, and they are much more moderate on the west than on the east side of the Alleghanies in similar latitudes. * * *

"The seasons and general state of the weather correspond with what has been mentioned of upper Louisiana in similar latitudes: In spring heavy rains; in summer an almost cloudless sky, with heavy dews at night; in autumn some rain, followed by the *Indian summer*; and the winter from ten weeks to three months long, which is dry, sharp, and pleasant."³⁶

Writing from Shawnee Town, Illinois Territory, in December, 1817, H. B. Fearon, another English traveler, said: "With regard to the seasons, they are said to have severe winters of from three to four months, with a keen, dry air and cloudless sky; during summer, excessive heat (thermometer in the shade 80° to 96°), with heavy dews at night; springs, cold and heavy rains; autumns, fine, followed by '*Indian summer*,' which is truly delightful. This I have experienced, and can say that until now I never knew what really fine weather was."³⁷

than 1848. For more than a century, however, this use has been common in our country, and in 1817 M. Birkbeck, an English traveler, thus amusingly commented upon it:

"The grand in scenery I have been shocked to hear, by American lips, called disgusting, because the surface would be too rude for the plough; and the epithet of *elegant* is used on every occasion of commendation but that to which it is appropriate in the English language.

"An *elegant improvement* is a cabin of rude logs, and a few acres with trees cut down to the height of three feet, and surrounded by a worm-fence, or zig-zag railing. You hear of an *elegant* mill, an *elegant* orchard, an *elegant* tan-yard, &c., and familiarly of *elegant* roads,—meaning such as you may pass without extreme peril. The word implies eligibility or usefulness in America, but has nothing to do with taste." (Notes on a Journey in America, second edition, 1818, p. 133.)

³⁴ Natural and Statistical View, or Picture of Cincinnati and the Miami Country, p. 110.

³⁵ "Indians begin to provide for the winter when this state of the weather commences, as they know it will soon approach."

³⁶ Travels in the Interior of America, in the Years 1809, 1810, and 1811, pp. 258, 259, 282.

³⁷ Sketches of America, 1818, p. 221.

In 1819 Dr. H. M'Murtrie remarked: "A sketch of the weather during the last winter will convey as much information upon the subject, as a volume. Early in the fall the Indian Summer as it is called, succeeded the Autumn, and lasted four weeks with occasional days of extremely cold weather: this was succeeded by a week of changes the most sudden and extraordinary I ever witnessed, the ponds in the town, being frozen and thawed alternately during the same day, which was closed by a night equally as variable. The cold now appeared as though it had commenced in good earnest; during the space of three weeks it was very intense, quantities of drifting ice were seen on the Ohio, the ponds were incrustated by it three inches deep, when the wind, which had hitherto blown from the northwest, suddenly veering to the south and south-southwest, a warm rain fell, which dissolved the icy fetters of winter and again restored the Indian Summer. Such was the mildness of the weather till the latter end of January, that the buds of the peach trees were swelled, and had not a few frosty nights supervened, they must have blossomed."³⁸

This is certainly one of the most singular passages we shall have to consider. For three centuries and a half most people have been content to regard autumn and fall as synonymous terms, but Dr. M'Murtrie seems to have entertained a different notion. According to him, the fall comes after the autumn. The Indian summer, in 1818, after lasting four weeks, was succeeded by one week of sudden changes, and this by three weeks of cold, when the Indian summer was again restored, and, perhaps, extended into January. But this is not certain, for the passage is very indefinite, though it at least shows that the Indian summer was regarded by M'Murtrie as lasting a long time.

In 1821 John Howison wrote: "The autumns of Upper Canada very much resemble those of Britain. October is usually a delightful dry month, with mild days and clear frosty nights. The early part of November is generally characterized by a peculiar state of the weather, which the Canadians term *Indian summer*. The atmosphere has a haziness and smokiness which makes distant objects appear indistinct and undefined, and a halo often encircles the sun. At the same time, a genial warmth prevails, and there is seldom any wind. The Indian summer is so delightful, that one would almost suppose the country where it takes place to be transported for a season to some celestial clime, where the elements ever existed in harmony and acted in unison. It is extremely difficult to explain the cause of the regular occurrence of this kind of weather; for scarcely a year passes, in the autumn of which there are not some days of Indian summer."³⁹

In 1821 William Tudor remarked: "One of the most agreeable peculiarities in our climate is a period in the autumn, called the *Indian Summer*; it happens in October, commencing a few days earlier or later, as the season may be. The temperature is delightful and the weather differing in its character from that of any other season. The air is filled with a slight haze, like smoke, which some persons suppose it to be; the wind is south west, and there is a vernal softness in the atmosphere; yet the different altitude of the sun from what it has in the summer, makes it in other respects very unlike that season. This singular occurrence in our climate seems to be to summer, what a vivid recollection of past joys is to the reality."⁴⁰

³⁸ Sketches of Louisville And its Environs, pp. 49, 50.

³⁹ Sketches of Upper Canada, pp. 230, 231. This is the earliest appearance of the term in Canada known to me.

⁴⁰ Letters on the Eastern States, second edition, p. 312. Tudor goes on to say that "the Indians have some pleasing superstitions respecting it," and then quotes from the Rev. J. Freeman a passage which will be considered later. It is curious that in the first edition of his Letters on the Eastern States, published in 1818, Tudor, though he devotes pp. 258-266 to climate, has not a word to say about Indian summer, and the passage quoted in the text appeared for the first time in the second edition.

In 1823 J. Farmer and J. B. Moore wrote: "From the 20th of September to the 20th of October, the weather is delightful. The temperature is mild, the air is sweet, and the sky singularly bright and beautiful. This period is denominated the Indian Summer."⁴¹

In 1826 Timothy Flint observed: "Then, when we were made fast in a cove on the wide sand-bar; when the moon, with her circumference broadened and reddened by the haze and smoke of Indian summer, rose, and diffused, as Chateaubriand so beautifully says, the 'great secret of melancholy over these ancient forests;'—after our evening prayers, and the favorite hymn, 'The day is past and gone,' etc. I have spent hours in traversing the sand-bars entirely alone."⁴²

In 1829 James Macauley said: "In autumn there are usually several great movements in the atmosphere, which serve as so many precursors of the approach of winter. The first happens about the time of the equinox, and is often attended with heavy wind and more or less rain. * * * This is succeeded by fine weather, which lasts with some interruptions, till about the 10th or 20th of October, when the second occurs. This, like the preceding, is accompanied by wind and rain. There is, however, considerable difference. The winds are often very violent, and come near to hurricanes. * * * These winds rarely last over two or three days. They are followed by cold of some days duration, when the weather settles down and becomes fine. The Indian Summer, a series of smoky days, usually follows or comes shortly after the settlement. Its continuance is now and then two weeks. The Indian Summer, at present, is shorter, and comes later than formerly. A third begins about the middle or latter part of November."⁴³

In the same year John MacTaggart remarked: "The snow generally begins to fall about the middle of November: in the woods, it is seldom attended with wind, but in the cleared places it blows into huge wreaths; the roadways are filled full between the fences. In the beginning of the above-named month, there are generally a few very fine warm days, called the *Indian Summer*."⁴⁴

By 1830 the term had found its way to England, for in that year De Quincey, alluding to Bentley, wrote: "An Indian summer crept stealthily over his closing days; a summer less gaudy than the mighty summer of the solstice, but sweet, golden, silent; happy, though sad; and to Bentley, upon whom (now eighty years old) his last fatal illness rushed as suddenly as it moved rapidly through all its stages, it was never known that this sweet mimicry of summer—a spiritual or fairy echo of a mighty music that has departed—is as frail and transitory as it is solemn, quiet, and lovely."⁴⁵

⁴¹Gazetteer of the State of New Hampshire, p. 9.

⁴²Recollections of the Last Ten Years, Passed in the Valley of the Mississippi, p. 285.

⁴³Natural, Statistical, and Civil History of the State of New York, i, 369, 370.

⁴⁴Three years in Canada: An Account of the Actual State of the Country in 1826-1828, ii, 2.

⁴⁵Bentley, Works, 1843, vi, 180. The beginning of the passage is cited in the Oxford Dictionary. De Quincey adds a note which is of interest as showing how readily the term found acceptance in England: "The Indian summer of Canada, and I believe universally of the Northern United States, is in November, at which season, in some climates, a brief echo of summer uniformly occurs. It is a mistake to suppose it unknown in Europe. Throughout Germany (I believe also Russia) it is popularly known, sometimes as *The Old Woman's Summer*, sometimes as *The Girl's Summer*. A natural question arises—what lurking suggestion it is of dim ideas or evanescent images that confers upon the Indian summer its peculiar interest. Already in its German and Livonian names we may read an indication, that by its primary feature this anomalous season came forward as a *feminine* reflection of a power in itself by fervour and creative energy essentially *masculine*; a *lunar* image of an agency that, by its rapture and headlong life, was imperishably *solar*. Secondly, it was regarded as a dependency, as a season that looked back to something that had departed, a faint memorial (like the light of setting suns) recalling an archetype of splendours that were hurrying to oblivion. Thirdly, it was itself attached by its place in the succession of annual phenomena

In 1832 John M'Gregor said: "In September, the weather is extremely pleasant. The season, from this time to the middle or latter part of October, is generally a continuation of pleasant days. * * * About the end of this month, * * * there appears in the atmosphere a determination to establish cold weather. * * * Rain, sunshine, evaporation, and slight frosts, succeed each other, and the leaves of the forest from this period, change their verdure into the most brilliant and rich colours. * * * After this crisis, the air becomes colder, but the sky continues clear; and a number of fine days usually appear in November. There are frosts at night, but the sun is warm in the middle of the day; the evenings and mornings are pleasant, but cool, and a fire becomes agreeable. This period is termed all over America the 'Indian summer,' and is always looked for, and depended on, as the time to make preparations for the winter season."⁴⁶

In 1833 a Baltimorean wrote: "The term Indian summer, has been applied to that obscure and hazy condition of the atmosphere, which usually occurs toward the last of November, attended with a peculiar redness of the sky, an absence of rain, and we might add an obviously increased temperature; which latter fact is in some degree significant of its name. * * * Having stated that the Indian summer appears usually in the month of November, we do not however, wish to be understood, that a haziness or obscurity of the air occurs in that month only, and that its duration is confined, and peculiar to, a few days in the latter part of the autumnal season—on the contrary, common observation (as well as the minute references to meteorological tables) proves, that it is by no means uncommon in the month of October, and is frequently mistaken then for the true Indian summer, by persons unacquainted with the proper period of its accession. * * * It is worthy of remark, that according to the recollection of our older inhabitants, its former duration was often three or four weeks, whereas its present continuance is short and uncertain, seldom exceeding ten or fifteen days. It appears further, that this decline has been somewhat regular, keeping pace with, and evidently influenced by, the gradual uncovering of the country."⁴⁷

In 1835 C. J. Latrobe, an English traveler, remarked: "I have mentioned, that uncertain as the occurrences of genial weather might now be in this latitude, we had been encouraged to hope that the delicious season, known by the name of the Indian Summer, which ordinarily intervenes between the fall of the leaf and the commencement of the severe winter of the north, might yet come to our aid in the prosecution of our excursion. It is true, the north wind blew while we were at Prairie de Chien, * * * still we were not deceived, but before the lapse of many days we saw the sleet disappear—the wind cease to agitate the river and the forest—the wild fowl pause in their passage, and, furling their pinions, alight by myriads among the islands and marshes, and, as though by enchantment, a season settle down upon the earth, which, for its peculiar beauties, might vie with the most poetical and delicious in the circle of the year. To what shall we compare the Indian Summer? To the last bright and unexpected flare of a dying taper—to the sudden and short-lived return to consciousness and apparent hope in one stretched upon the bed of death, after the standers by have deemed him gone—or to the warm, transient, but rosy glow which will often steal over the snows of the distant Alps, after

to the *departing* year. By a triple title, therefore, the Indian summer was beautiful, and was sad. For august grandeur, self-sustained, it substituted a frailty of loveliness; and for the riot and torrent rapture of joy in the fullness of possession, exchanged the moonlight hauntings of a visionary and saddened remembrance. In short, what the American Indian race itself at this time is, that the Indian summer represents symbolically—viz., the most perfect amongst human revelations of grace in form and movement, but under a *visible* fatality of decay."

⁴⁶British America, i, 125-127. My attention was called to this passage by Miss Sara Mickle of Toronto.

⁴⁷American Journal of Science, 1835, xxvii, pp. 140, 141, 146.

the sun is far below the Jura, and after they have been seen rearing themselves for a while, cold and ghastly white, over the horizon?

"During the Indian Summer the air is calm. Glistening strings of gossamer, woven by the aeronaut spider, stream across the landscape—all nearer objects are seen through a dreamy atmosphere filled with a rich golden haze, while the distance melts away in violet and purple. The surface of the river, with its moving flood of silver reflects all objects and every colour with matchless fidelity—the harsher tones of the rocks, of the deep brown forests, and of the yellow prairies appear so softened,—the reflection of their pale tints is so perfect, and such a similarity of colour and shade pervades the earth, the air and the water, that all three seem blended together."⁴⁸

In 1837 Longfellow, speaking of Sweden, observed: "Nor must we forget the sudden changing seasons of the Northern clime. There is no long and lingering spring, unfolding leaf and blossom one by one; no long and lingering autumn, pompous with many-colored leaves and the glow of Indian summer. But winter and summer are wonderful, and pass into each other."⁴⁹

In 1838 some unknown person wrote:

"To a resident in New England the very name of Indian Summer calls up so many essentially poetic images, that it is difficult to approach the subject without permitting the thoughts to run riot over the fairy scenes which that season presents; and we marvel not that it has suggested to the muse of America some of her most brilliant effusions: for it would require no great effort of the imagination to perceive in its balmy and buoyant air a portion of that *divinus afflatus* of which the old poets spake. * * * In the early part of October a strange interruption occurs to the progressive fall of the mercury, and when in the natural course of events we should be led to anticipate a still further increase of cold, we are surprised to perceive, that for two or three weeks successively, with a few slight exceptions, an elevation of temperature is experienced, to a greater degree in many cases than the average of the first week of September,—sometimes as great as the mean of the month of August. * * * But with us the 'afterheat' is attended with circumstances of no uncommon interest and beauty. In New England especially it is a rich and glorious season, in which Nature would seem struggling to withdraw attention from the decay which is stealing upon her, by the increased gorgeousness of her apparel, and the spring-like youthfulness of her voice and air; hiding moreover those defects which she can not otherwise conceal, by a thin veil of mild and smoky haze.

"The most peculiar characteristic of this Second Summer consists in the wonderful and beautiful change which takes place in the forest. This feature, however, though it continues throughout the whole of the Indian Summer's brief reign, begins, strictly speaking, to develop itself at an earlier period. * * *

"Scarcely has nature become enveloped in this gorgeous winding sheet, when the other characteristics of the Indian Summer begin to develop themselves. The temperature of the atmosphere during the hours of sunshine becomes milder than it has been for weeks before. There is a balmy and voluptuous softness and stillness in the air, resembling the early days of June. There is not wind enough to shake from the trees the leaves which hang from their branches by so feeble a tenure. A thin, smoky haze floats over the whole face of nature, softening and blending distant objects, and, combined with the tints of the neighbouring forests, giving a warmth of tone and coloring to the whole landscape. * * * The sun, though pale in the meridian height, at his setting is

tinged with a ruby gleam, which is reflected from the windows, and which suffuses every object on which it is thrown. The moon also wears a blush as she rises, and the planets which hang in the flushing west wear a more golden aspect than is their wont."⁵⁰

In 1839 Bela Hubbard said: "October 20. * * * Since 13th instant we have been favored with balmy Indian summer. All nature is hushed and wrapped in a thin, misty robe. Through this the sun's rays fall, robbed of their earlier brilliance and fervor and of a deeper and milder red.

"October 27. This delicious weather has continued until to-day, when a shower set in."⁵¹

On September 8, 1841, Thoreau wrote: "Your note came wafted to my hand like the first leaf of the Fall on the September wind, and I put only another interpretation upon its lines than upon the veins of those which are soon to be strewn around me. It is nothing but Indian Summer here at present. I mean that any weather seems reserved expressly for our late purposes whenever we happen to be fulfilling them."⁵²

In 1841 Whittier wrote:

"Thus, while at times before our eyes
The shadows melt and fall apart,
And, smiling through them, round us lies
The warm light of our morning skies,—
The Indian Summer of the heart!
In secret sympathy of mind,
In founts of feeling which retain
Their pure, fresh flow, we yet may find
Our early dreams not wholly vain!"⁵³

In 1842 Zaddock Thompson said: "But it appears that from the commencement of the settlement of the country, the Indian Summers have gradually become more and more irregular and less strikingly marked in their character, until they have almost ceased to be noticed."⁵⁴

In the same year J. F. Watson observed:

"INDIAN SUMMER.

"This was a short season of very fine, mild weather, which was formerly much more manifest than of later years. It was expected to occur in the last days of November. It was a bland and genial time, in which the birds, the insects, and the plants, felt a new creation, and sported a short-lived summer, ere they shrunk finally from the rigour of the winter's blast. The sky, in the mean time, was always thinly veiled in a murky haze—intercepting the direct rays of the sun, yet passing enough of light and heat to prevent sensations of gloom or chill. * * *

"The known amenity of such a season was fixed upon, in olden time, as the fittest time for the great fair at Philadelphia, which opened on the last Monday in November, and continued three days, thus insuring, as they conceived, as many good days, before and after the term, for good traveling to and from the same. The fair in the last week of May was also chosen for its known settled weather."⁵⁵

⁵⁰ United States Magazine and Democratic Review, iii, 153-159.

⁵¹ Memorials of a Half Century, 1887, p. 570.

⁵² Familiar Letters, 1894, p. 43.

⁵³ Memories, Poetical Works, 1888, ii, 97, 98.

⁵⁴ History of Vermont, i, 16.

⁵⁵ Annals of Philadelphia and Pennsylvania, ii, pp. 362, 363. In the National Intelligencer of Thursday, November 26, 1857, No. 8579, p. 2, appeared a communication signed "H.," from which the following is taken:

"The short season of pleasant weather usually occurring about the middle of November is called the Indian summer, from the custom of the Indians to avail themselves of this delightful time for harvesting their corn, and the tradition is that they were accustomed to say that 'they always had a second summer of nine days just before the winter set in.' It is a bland and genial time, in which the birds, insects, and plants feel a new creation, and sport a short-lived summer ere they shrink finally from the rigor of the winter's blast. The sky in the mean time is generally filled with a haze of orange and gold intercepting the direct rays

⁴⁸ The Rambler in America, ii, pp. 196-198.

⁴⁹ Drift-Wood, Prose Works, 1886, i, 324.

In 1842 Hawthorne remarked: "October 10th. * * * In the meantime autumn has been advancing, and is said to be a month earlier than usual. We had frosts sufficient to kill the bean and squash vines, more than a fortnight ago; but there has since been some of the most delicious Indian-summer weather that I ever experienced,—mild, sweet, perfect days, in which the warm sunshine seemed to embrace the earth and all earth's children with love and tenderness. * * * November 8th. * * * Ever since our return [from a trip of nine days], however, until to-day, there has been a succession of genuine Indian-summer days, with gentle winds, or none at all, and a misty atmosphere, which idealizes all nature, and a mild, beneficent sunshine, inviting one to lie down in a nook and forget all earthly care. To-day the sky is dark and lowering, and occasionally lets fall a few sullen tears. I suppose we must bid farewell to Indian summer now, and expect no more tenderness from Mother Nature till next spring be well advanced."⁵⁶

In 1844 the Rev. C. Dewey, speaking of the seasons of the previous year, said: "The fine warm smoky days, which commonly take place in October, or the beginning of November, and called Indian summer, did not appear this year in their usual perfection. Indeed, it was a common remark, that we had no Indian summer. * * * On the 17th of November the atmosphere was quite smoky, and a slight Indian summer appeared for eight days in succession."⁵⁷

In 1846 W. E. Maxwell remarked: "On reading, in Mr. Birt's report on 'Atmospheric Waves,' presented at the meeting of the British Association [see *Athenæum* of September 26], the account of the great November wave, it has struck me as a curious coincidence that the period of the maximum of the wave—viz, from the 12th to the 17th of November—is precisely that given by American travelers for the occurrence of that most remarkable meteorological phenomenon, the *Indian summer*; when, after having already had a foretaste of the rigours of the approaching winter, a sudden change of temperature takes place, a delicious warmth is felt, the sky is without a cloud, not a breath of air is stirring, and the whole atmosphere is filled with a glowing transparent haze,—which state of weather lasts about three days."⁵⁸

In 1847 Charles Peirce published a volume giving an account of the weather at Philadelphia from 1790 to 1846. Perhaps the most singular feature of this book is that it does not contain a single allusion to smoke, but a single allusion to haze, and only three allusions to the Indian summer during those forty-seven years.⁵⁹

of the sun, yet passing enough light and heat to prevent sensations of gloom or chill, while the nights grow sharp and frosty, and the necessary fires give cheerful forecast of the social winter evenings near at hand."

"H." concludes by an allusion to St. Martin's summer and by quoting Shakespeare. It is clear that "H." coolly appropriated the passage cited in the text from Watson and passed it off as original.

⁵⁶American Note-Books, 1883, pp. 326-328. Hawthorne was at Concord, Mass. In a novel written in 1851, Hawthorne said: "Indeed, all the enjoyments of this period were provocative of tears. Coming as late as it did, it was a kind of Indian summer, with a mist in its balmy sunshine, and decay and death in its gaudiest delight." (*House of the Seven Gables*, 1883, p. 180.)

⁵⁷In the Fifty-Seventh Annual Report of the Regents of the University of the State of New York, 1844, p. 231. Rochester, N. Y., is referred to. On October 31, 1854, Mr. Dewey wrote: "Primary and secondary rainbows at west this morning and evening large and fine. Indian summer for nine preceding days." (*Sixty-Eighth Annual Report*, 1855, p. 298.) My attention was called to these Reports by Professor Abbe.

⁵⁸The *Athenæum*, October 17, 1846, p. 1070. In the *Athenæum* of November 14 a correspondent, writing from Ostend, said: "In Switzerland the same phenomenon has been remarked from time immemorial, and l'Été de St. Martin has passed into a proverb. Now, the 11th of November is the fête of this worthy;—and from diaries which I kept during six consecutive years in Switzerland and southern Bavaria, I find that, with the exception of 1837, we had a return of perfect summer weather for four or five days together,—and this, after the season had apparently completely broken up. In all cases, this occurred about that same period—or rather toward the 14th of the month." (P. 1171.)

On September 29, 1848, Lord Houghton wrote: "We have just had one of those autumnal summers (one of those Indian summers that old Gentz said Fanny Ellsler gave him) which turn the English year topsy-turvey. It is now over, and we are back to the old climate again."⁶⁰

In 1848 S. P. Hildreth observed: "In October, and fore part of November, the weather is usually serene and delightful, rivaling in the mellow and balmy state of the atmosphere, that of Greece, or Italy. It is in fact the most poetic season of the year. The various hues imparted to the forests by the advance of autumn, which daily changes and deepens their rich and gorgeous tints, when seen through the light mists of our 'Indian summer,' gives a charming and romantic view to the landscape, which few portions of the world can equal and none surpass."⁶¹

In 1849 Charlotte Brontë observed: "It was a peaceful autumn day. The gilding of the Indian summer mellowed the pastures far and wide. The russet woods stood ripe to be stript, but were yet full of leaf. The purple of heath-bloom, faded but not withered, tinged the hills."⁶²

On October 31, 1850, Thoreau said: "This has been the most perfect afternoon of the year. The air quite warm enough, perfectly still and dry and clear, and not a cloud in the sky. Scarcely the song of a cricket is heard to disturb the stillness. Our Indian summer, I am tempted to say, is the finest season of the year. Here has been such a day as I think Italy never sees."⁶³

⁵⁹Meteorological Account of the Weather in Philadelphia from January 1, 1790, to January 1, 1847. The allusions to Indian summer are as follows, the references being to November, 1831, 1840, and 1844, respectively: "It commenced and continued mild and pleasant (Indian-summer like, until the 11th, with the wind varying from west to south. * * * The medium temperature of this month was 43°, and it commenced with what is generally called 'Indian Summer', and so continued until the 8th, when the wind changed to northeast, and rain soon followed. * * * There were eighteen clear days, and a great part of the month was like Indian summer in this vicinity." (Pp. 225, 231, 234.)

In his preface Peirce says that he has "kept a regular account of the weather for a longer period of time, than, perhaps, any other person now living." In this connection mention may be made of the *Journal of the Rev. Thomas Smith* (edited by W. Willis in 1849), which, extending from 1722 to 1787, is filled with details about weather. There are constant references to mild, warm, and pleasant days in September, October, November, and December, and also to cold, stormy, and unpleasant days during the same months; but there is not so much as a single allusion to smoke or haze during those four months in the sixty-six years covered by the journal.

⁶⁰Life, Letters & Friendships, 1891, i, 407. Writing from Washington November 14, 1875, and again from Dunfermline, Scotland, October 16, 1879, Lord Houghton said:

"This tour of mine has had its difficulties, and I have never been quite well for a single day. I am perhaps better now, the weather being delightful—the real Indian summer. * * * I and Florence are descending to England, having had our Indian summer in magnificent scenery." (ii, 327, 386.)

⁶¹Pioneer History: being an Account of the First Examinations of the Ohio Valley, and the Early Settlement of the Northwest Territory, p. 493.

⁶²Shirley (Tauchnitz edition), ii, 200. Cited in E. C. Brewer's Dictionary of Phrase and Fable, 1895, p. 653.

⁶³Autumn, 1894, p. 181. This volume contains numerous allusions to the Indian summer, and it will be of interest to observe the days on which Thoreau noted Indian-summer weather. They are: September 27th, October 7th, 13th, 14th, 31st, November 1st, 7th, 8th, 17th, 23d, 25th, December 7th, 10th, and 13th. Thus, at a single locality (Concord, Mass.), in a single volume, within a period of ten years (1851 to 1860) a single writer's allusions to Indian summer run all the way from September 27th to December 13th, or seventy-seven days. Nothing could better show the elasticity and the utter indefiniteness of the term in the popular mind. With Thoreau's observations may be compared some made by a scientific investigator. Professor Hind prints in his *Narrative of the Canadian Red River Exploring Expedition*, 1860, ii, 384, a table furnished by Mr. James Walker, Assistant at the Provincial Observatory at Toronto. The observations cover a period of twenty years (1840 to 1859). According to Mr. Walker the Indian-summer season begins between October 5th and November 20th, and ends between October 11th and November 23d, its shortest duration is three days, its longest eleven days, and its mean duration six days. The season twice made its appearance in the years 1844 and 1857.

The reader's attention may also be called to another curious passage.

In 1850 Susan Fenimore Cooper wrote: "One is led to believe that the American autumn has helped to set the fashion for the sister season of the Old World; that the attention which the season commands in this country, has opened the eyes of Europeans to any similar graces of the same months in their own climates; the gloom is less heeded by them, while every pleasing touch is noted with gratification. In the same way, we now see frequent allusions to the 'Indian summer' by Englishmen, in their own island, where this last sweet smile of the declining year was entirely unheeded until its very marked character in this country had attracted admiration. Our native writers, as soon as we had writers of our own, pointed out very early both the sweetness of the Indian summer, and the magnificence of the autumnal changes. In fact, they must have been dull and blind not to have marked both these features of the season, as we usually enjoy them. And here, indeed, we find the precise extent of the difference between the relative beauty of autumn in Europe and in America: with us it is quite impossible to overlook these peculiar charms of the autumnal months; while in Europe, though not wholly wanting, they remained unnoticed, unobserved, for ages. Had the same soft atmosphere of the 'Indian summer' warmed the woods of Windsor, year after year, while Geoffrey Chaucer roamed among their glades, the English would have had a word or a phrase to express the charm of such days, before they borrowed one from another continent."⁶⁴

This passage invites comment. It is true that "our native writers, as soon as we had writers of our own, pointed out" the delights of the Indian summer and the beauties of our autumn foliage; but we had no such writers, in the sense meant by Miss Cooper, until late in the eighteenth century, and for almost two hundred years Americans had been both "dull and blind" to those features of the autumn. Miss Cooper, too, is mistaken in thinking that the English had "no word or phrase to express the charm of such days;" they had and have several such phrases. The term All-hallow summer⁶⁵ occurs in Shakespeare, as also does St. Martin's

In a letter dated "General Land Office, November 22, 1819," a person who signed himself "J. M." wrote: "*Indian summer*.—This interesting meteor has had a name ever since the earliest settlements of our country. * * * Peyton S. Symmes, Esq., Register of the Land Office at Cincinnati, has communicated more exact notices of this meteor than any other of my correspondents. I present his notices, observing that Indian summer is always in the autumnal season—the falling of the leaf:

"1818. Indian summer begins September 23, suspended October 3; returns October 7, suspended October 20; returns October 22, suspended November 6; returns November 8, suspended December 6; returns December 7, suspended December 28; returns December 29. 1819. Indian summer begins October 1, suspended October 9; returns October 23, continues October 31."

"From this it appears that, of the ninety-seven days between September 23 and December 29, 1818, eighty-eight had the character of *Indian summer*." (Columbian Centinel, 1 December, 1819, No. 3719, p. 2.)

⁶⁴Rural Hours, pp. 335, 336. This occurs under date of October 11. Under October 16 Miss Cooper wrote: "Charming weather; bright and warm, with hazy Indian summer atmosphere. They are harvesting the last maize-fields" (p. 344).

⁶⁵In the First Part of Henry IV, i, ii, 178. Prince Hal, in taking leave of Falstaff, says: "Farewell, thou latter spring! farewell, All-hallow summer!"

After quoting the above in the Oxford Dictionary, Dr. Murray observes: "*All-hallow Summer*: a season of fine weather in the late autumn; also *fig.* brightness or beauty lingering or reappearing in old age. Apparently *Obs.*, but worthy of revival, as much superior to its equivalents, *St. Martin's Summer* (from French), and the *Indian Summer* of America."

There is no evidence to show that such an expression was ever employed either in Old France or in New France. Longfellow drew most of

summer;⁶⁶ the term Go-summer⁶⁷ was formerly current in Scotland; at the present day one finds in England St. Martin's summer and St. Luke's summer; and an expression apparently meaning St. Michael's summer is said to be used in Wales.⁶⁸ It will be convenient to mention in this place some expressions found elsewhere in Europe. In France the summer of St. Denis and St. Martin's summer are employed both literally and figuratively;⁶⁹ in Germany, *Altweibersommer*⁷⁰ is current; and in several countries other expressions are said to be found.⁷¹ Thus, as the late R. G. White remarked, "even this beautiful season is therefore not one of those good things which are peculiarly 'American.'"⁷²

The term was still known in England early in the nineteenth century, for the Englishman who translated Volney's *Tableau* said that the St. Martin's summer of France was "in England, an All-hallow summer." (View of the Climate and Soil of the United States, p. 262 note.)

In 1847 Longfellow in his *Evangeline* wrote:

"Such was the advent of autumn. Then followed that beautiful season,
Called by the pious Acadian peasants the Summer of All-Saints!"

his material for that poem, so far as it relates to Nova Scotia, from T. C. Haliburton's *Historical and Statistical Account of Nova Scotia*, published in 1829; but Haliburton does not appear to say anything about the summer of All Saints. Longfellow's statement, then, is either due to poetic license or else is drawn from some unknown source. What Sir Adams G. Archibald said in 1886 is to the point: "We do not quarrel with Longfellow on the ground of historical inaccuracy. The poet is not required to confine himself to the region of facts. He constructs his story as he chooses, subject only to the rules of art. It is to truth in this respect, not to the truth of facts, that he owes allegiance." (Collections of the Nova Scotia Historical Society, v, 13.)

⁶⁶In the First Part of Henry VI, i, ii, 131:

"This night the siege assuredly I'll raise;
Expect Saint Martin's summer, halcyon days,
Since I have entered into these wars."

⁶⁷See the Oxford Dictionary under Gossamer and Go-summer, and compare the German *Altweibersommer*.

⁶⁸See Notes and Queries, 1874, Fifth Series, ii, 381, 477, 518. In the same place there is an illusion to "All Saints' summer," as if the term were still known in England.

⁶⁹In the seventeenth century Madame de Sévigné wrote: "Nous avons un petit été de Saint-Martin, froid et gaillard, que j'aime mieux que la pluie."

In the nineteenth century X. A. de Montépin wrote: "Que diable voulez-vous? mon été de la Saint-Martin ne veut pas finir! Je n'y puis rien."

These extracts are taken from P. Larousse, *Grand Dictionnaire Universel du XIX Siècle*, vii, 1023. See also Littré.

⁷⁰See Brockhaus' *Konversations-Lexikon*, 1892, i, 480, and Meyers *Konversations-Lexikon*, 1893, i, 452.

⁷¹In 1873 the Rev. C. Swainson, for the accuracy of whose statements, however, I do not vouch, said: "In Lombardy the peasants always expect a few fine days towards the middle of this month [October], which they call 'L'està de Santa Teresa,' i. e., St. Teresa's summer, because the festival of that saint falls on the 15th; and the warm weather which we so often experience at this season, is in almost every European country known by the name of summer. Thus the Germans call it 'Altweiber Sommer,' or the summer of St. Gall (October 16), or 'of St. Martin' (November 11); the Swedes give it the title of St. Bridget's Summer (St. Bridget's day being October 8); the Bohemians, 'the Summer of St. Wenceslaus' (September 28); the Belgians, 'St. Michael's Summer;' our own country people 'St. Luke's little Summer;' and the French, 'L'été de Saint Denis' (October 9). The Americans call it, 'The Indian Summer.'" (Handbook of Weather Folk-Lore, p. 134.)

Finally, as we shall presently see, St. John's summer is reported to be employed in the Argentine Republic.

⁷²The *Galaxy*, xxv, 94, 95. White also says that "there is nothing peculiar in the American Indian summer but the rich coloring of its foliage, and perhaps the warm golden haze which here then fills the air." White places the season "in the middle of November."

[To be concluded in February REVIEW.]