

the resulting legislation was disapproved by the missionaries, and "the variance of opinion was most unfortunate in its results to the colony, as impairing the harmony which had hitherto prevailed."—J. G. Shea, *The Catholic Church in Colonial Days*, ch. 2.

ALSO IN: J. L. Bozman, *Hist. of Maryland*, ch. 1.—W. H. Browne, *George Calvert and Cecilus Calvert*, ch. 3-4.

A. D. 1634.—Embraced in the palatine grant of New Albion. See NEW ALBION.

A. D. 1635-1638.—The troubles with Clayborne.—William Clayborne "was the person most aggrieved by the Maryland charter. Under a general license from Charles I. to trade, he had established a lucrative post on Kent Island. The King, as he had unquestioned right to do under the theory of English law, granted to Lord Baltimore a certain tract of wild land, including Kent Island. Clayborne had no legal right there except as the subject of Baltimore; but, since his real injuries coincided with the fancied ones of the Virginians generally, his claim assumed importance. . . . There was . . . so strong a feeling in favor of Clayborne in Virginia that he was soon able to send an armed pinnace up the Chesapeake to defend his invaded rights at Kent Island, but the expedition was unfortunate. Governor Calvert, after a sharp encounter, captured Clayborne's pinnace, and proclaimed its owner a rebel. Calvert then demanded that the author of this trouble should be given up by Virginia; but Harvey [the governor], who had been in difficulties himself on account of his lukewarmness toward Clayborne, refused to comply. Clayborne, however, solved the problem in his own way, by going at once to England to attack his enemies in their stronghold. . . . On his arrival in England he . . . presented a petition to the King, and by adroitly working on the cupidity of Charles, not only came near recovering Kent Island, but almost obtained a large grant besides. After involving Lord Baltimore in a good deal of litigation, Clayborne was obliged, by an adverse decision of the Lords Commissioners of Plantations, to abandon all hopes in England, and therefore withdrew to Virginia to wait for better times."—H. C. Lodge, *Short Hist. of the Eng. Colonies in Am.*, ch. 3.

ALSO IN: J. L. Bozman, *Hist. of Maryland*, v. 2, ch. 1.

A. D. 1643-1649.—Colonial disturbances from the English Civil War.—Lord Baltimore and the Puritans.—The struggle of parties incident to the overthrow of the monarchy and the civil war, in England, was attended in Maryland "with a degree of violence disproportionate to its substantial results. It is difficult to fasten the blame of the first attack definitely on either party. In 1643 or 1644 the King gave letters of marque to Leonard Calvert commissioning him to seize upon all ships belonging to the Parliament. It would seem, however, as if the other side had begun to be active, since only three months later we find the Governor issuing a proclamation for the arrest of Richard Ingle, a sea-captain, apparently a Puritan and an ally of Clayborne. . . . Ingle . . . landed at St. Mary's [1645], while Clayborne at the same time made a bold attempt upon Kent Island. Later events showed that under a resolute leader the Marylanders were capable of a determined resistance, but now either no such leader was forth-

coming, or the party was taken by surprise. Cornwallis, who seems to have been the most energetic man in the colony, was absent in England, and Leonard Calvert fled into Virginia, apparently without an effort to maintain his authority. Ingle and his followers landed and seized upon St. Mary's, took possession of the government, and plundered Cornwallis's house and goods to the value of £300. Their success was short-lived. Calvert returned, rallied his party, and ejected Clayborne and Ingle. The Parliament made no attempt to back the proceedings of its supporters, and the matter dwindled into a petty dispute between Ingle and Cornwallis, in which the latter obtained at least some redress for his losses. The Isle of Kent held out somewhat longer, but in the course of the next year it was brought back to its allegiance. This event was followed in less than a twelvemonth by the death of the Governor [June 9, 1647]. Baltimore now began to see that in the existing position of parties he must choose between his fidelity to a fallen cause and his position as the Proprietor of Maryland. As early as 1642 we find him warning the Roman Catholic priests in his colony that they must expect no privileges beyond those which they would enjoy in England. He now showed his anxiety to propitiate the rising powers by his choice of a successor to his brother. The new Governor, William Stone, was a Protestant. The Council was also reconstituted and only two Papists appeared among its members. . . . Furthermore he [Lord Baltimore] exacted from Stone an oath that he would not molest any persons on the ground of their religion, provided they accepted the fundamental dogmas of Christianity. The Roman Catholics were singled out as the special objects of this protection, though we may reasonably suppose that it was also intended to check religious dissensions. So far Baltimore only acted like a prudent, unenthusiastic man, who was willing to make the best of a defeat and save what he could out of it by a seemingly free sacrifice of what was already lost. . . . The internal condition of the colony had now been substantially changed since the failure of Ingle and Clayborne. The Puritan party there had received an important addition. . . . A number of Nonconformists had made an attempt to establish themselves on the shores of the Chesapeake Bay. . . . The toleration which was denied them by the rigid and narrow-minded Anglicanism of Virginia was conceded by the liberality or the indifference of Baltimore. The precise date and manner of their immigration cannot be discovered, but we know that by 1650 their settlement was important enough to be made into a separate county under the name of Ann Arundel, and by 1653 they formed two distinct communities, numbering between them close upon 140 householders. All that was required of them was an oath of fidelity to the Proprietor, and it seems doubtful whether even that was exacted at the outset. They seem, in the unsettled and anarchical condition of the colony, to have been allowed to form a separate and well-nigh independent body, holding political views openly at variance with those of the Proprietor. To what extent the settlers on the Isle of Kent were avowedly hostile to Baltimore's government is doubtful. But it is clear that discontent was rife among them, and that in conjunction with the new-comers they

made up a formidable body, prepared to oppose the Proprietor and support the Parliament. Symptoms of internal disaffection were seen in the proceedings of the Assembly of 1649."—J. A. Doyle, *The English in America: Virginia, Maryland, etc.*, ch. 10.

Also in: G. P. Fisher, *The Colonial Era*, ch. 5.

A. D. 1649.—The Act of Toleration.—"Religious liberty was a vital part of the earliest common-law of the province. At the date of the charter, Toleration existed in the heart of the proprietary. And it appeared in the earliest administration of the affairs of the province. But an oath was soon prepared by him, including a pledge from the governor and the privy counsellors, 'directly or indirectly' to 'trouble, molest, or discountenance' no 'person whatever,' in the province, 'professing to believe in Jesus Christ.' Its date is still an open question—some writers supposing it was imposed in 1637; and others, in 1648. I am inclined to think the oath of the latter was but 'an augmented edition' of the one in the former year. The grant of the charter marks the era of a special Toleration. But the earliest practice of the government presents the first, the official oath the second, the action of the Assembly in 1649 the third, and to advocates of a republican government the most important phasis, in the history of the general Toleration. . . . To the legislators of 1649 was it given . . . to take their own rank among the foremost spirits of the age. Near the close of the session, . . . by a solemn act [the 'Act Concerning Religion'], they endorsed that policy which ever since has shed the brightest lustre upon the legislative annals of the province. . . . The design was five-fold:—to guard by an express penalty 'the most sacred things of God'; to inculcate the principle of religious decency and order; to establish, upon a firmer basis, the harmony already existing between the colonists; to secure, in the fullest sense, freedom as well as protection to all believers in Christianity; and to protect quiet disbelievers against every sort of reproach or ignominy."—G. L. Davis, *The Day-star of American Freedom*, ch. 4-7.—"In the wording of this act we see evident marks of a compromise between the differing sentiments in the Assembly. . . . It was as good a compromise as could be made at the time, and an immense advance upon the principles and practice of the age. In reality, it simply formulated in a statute what had been Baltimore's policy from the first. . . . From the foundation of the colony no man was molested under Baltimore's rule on account of religion. Whenever the Proprietary's power was overthrown, religious persecution began, and was checked so soon as he was reinstated."—W. H. Browne, *Maryland*, ch. 4.

Also in: The same, *George Calvert and Cecilius Calvert*, ch. 8.

A. D. 1650-1675.—In Puritan times, and after.—"To whatever causes . . . toleration was due, it worked well in populating Maryland. There was an influx of immigration, composed in part of the Puritans driven from Virginia by Berkeley. These people, although refusing the oath of fidelity, settled at Providence, near the site of Annapolis. Not merely the Protestant but the Puritan interest was now predominant in Maryland, and in the next Assembly the Puritan faction had control. They elected one of their leaders Speaker, and expelled

a Catholic who refused to take an oath requiring secrecy on the part of the Burgesses. . . . Yet they passed stringent laws against Clayborne, and an act reciting their affection for Lord Baltimore, who had so vivid an idea of their power that he deemed it best to assent to sumptuary laws of a typically Puritan character. The Assembly appears to have acknowledged the supremacy of Parliament, while their proprietary went so far in the same direction that his loyalty was doubted, and Charles II. afterward appointed Sir William Davenant in his place to govern Maryland. This discreet conduct on the part of Lord Baltimore served, however, as a protection neither to the colonists nor to the proprietary rights. To the next Assembly, the Puritans of Providence refused to send delegates, evidently expecting a dissolution of the proprietary government, and the consequent supremacy of their faction. Nor were they deceived. Such had been the prudence of the Assembly and of Lord Baltimore that Maryland was not expressly named in the Parliamentary commission for the 'reducement' of the colonies, but, unfortunately, Clayborne was the ruling spirit among the Parliamentary commissioners, and he was not the man to let any informality of wording in a document stand between him and his revenge. . . . Clayborne and Richard Bennet, one of the Providence settlers, and also a commissioner, soon gave their undivided attention to Maryland." Stone was displaced from the Governorship, but reinstated after a year, taking sides for a time with the Puritan party. "He endeavored to trim at a time when trimming was impossible. . . . Stone's second change, however, was a decided one. Although he proclaimed Cromwell as Lord-Protector, he carried on the government exclusively in Baltimore's interest, ejected the Puritans, recalled the Catholic Councillors, and issued a proclamation against the inhabitants of Providence as factious and seditious. A flagrant attempt to convert a young girl to Catholicism added fuel to the flames. Moderation was at an end. Clayborne and Bennet, backed by Virginia, returned and called an Assembly, from which Catholics were to be excluded. In Maryland, as in England, the extreme wing of the Puritan party was now in the ascendant, and exercised its power oppressively and relentlessly. Stone took arms and marched against the Puritans. A battle was fought at Providence, in which the Puritans, who, whatever their other failings, were always ready in a fray, were completely victorious. A few executions and some sequestrations followed, and severe laws against the Catholics were passed. The policy of the Puritans was not toleration, and they certainly never believed in it. Nevertheless, Lord Baltimore kept his patent, and the Puritans did not receive in England the warm sympathy they had expected." In the end (1657) there was a compromise. The proprietary government was re-established, and Fendall, whom Baltimore had appointed Governor in place of Stone, was recognized. "The results of all this turbulence were the right to carry arms, the practical assertion of the right to make laws and lay taxes, relief from the oath of fealty with the obnoxious clauses, and the breakdown of the Catholic interest in Maryland politics. Toleration was wisely restored. The solid advantages gained by the Puritan minority at the expense

of the lord proprietary. In the interregnum which ensued on the abdication of Richard Cromwell, the Assembly met and claimed supreme authority in the province, and denied their responsibility to any one but the sovereign in England. Fendall, a weak man of the agitator species, acceded to the claims of the Assembly; but Baltimore removed Fendall, and kept the power which the Assembly had attempted to take away. . . . Maryland did not suffer by the Restoration, as was the case with her sister colonies, but gained many solid advantages. The factious strife of years was at last allayed, and order, peace, and stability of government supervened. Philip Calvert, an illegitimate son of the first proprietary, was governor for nearly two years, and was then succeeded [1661] by his nephew, Charles, the oldest son of Lord Baltimore, whose administration lasted for fourteen. It would have been difficult to find at that time better governors than these Calverts proved themselves. Moderate and just, they administered the affairs of Maryland sensibly and well. Population increased, and the immigration of Quakers and foreigners, and of the oppressed of all nations, was greatly stimulated by a renewal of the old policy of religious toleration. The prosperity of the colony was marked."—H. C. Lodge, *Short Hist. of the Eng. Colonies*, ch. 8.

ALSO IN: J. Grahame, *Hist. of the U. S. (Colonial)*, bk. 3 (v. 1).—D. R. Randall, *A Puritan Colony in Md. (Johns Hopkins Univ. Studies, 4th series, no. 6)*.—W. H. Browne, *George Calvert and Cecilus Calvert*, ch. 8-9.

A. D. 1664-1682.—Claims to Delaware disputed by the Duke of York.—Grant of Delaware by the Duke to William Penn. See PENNSYLVANIA: A. D. 1682.

A. D. 1681-1685.—The Boundary dispute with William Penn, in its first stages. See PENNSYLVANIA: A. D. 1685.

A. D. 1688-1757.—Lord Baltimore deprived of the government.—Change of faith and restoration of his son.—Intolerance revived.—Lord Baltimore, "though guilty of no maleadministration in his government, though a zealous Roman catholic, and firmly attached to the cause of king James II., could not prevent his charter from being questioned in that arbitrary reign, and a suit from being commenced to deprive him of the property and jurisdiction of a province granted by the royal favour, and peopled at such a vast expence of his own. But it was the error of that weak and unfortunate reign, neither to know its friends, nor its enemies; but by a blind precipitate conduct to hurry on everything of whatever consequence with almost equal heat, and to imagine that the sound of the royal authority was sufficient to justify every sort of conduct to every sort of people. But these injuries could not shake the honour and constancy of lord Baltimore, nor tempt him to desert the cause of his master. Upon the revolution [1688] he had no reason to expect any favour; yst he met with more than king James had intended him; he was deprived indeed of all his jurisdiction [1691], but he was left the profits of his province, which were by no means inconsiderable; and when his descendants had conformed to the church of England, they were restored [1701] to all their rights as fully as the legislature has thought fit that any proprietor should

enjoy them. When upon the revolution power changed hands in that province, the new men made but an indifferent requital for the liberties and indulgences they had enjoyed under the old administration. They not only deprived the Roman catholics of all share in the government, but of all the rights of freemen; they have even adopted the whole body of the penal laws of England against them; they are at this day [1757] meditating new laws in the same spirit, and they would undoubtedly go to the greatest lengths in this respect, if the moderation and good sense of the government in England did not set some bounds to their bigotry."—E. Burke, *Acc't of the European Settlements in America*, pt. 7, ch. 18 (v. 2).—"We may now place side by side the three tolerations of Maryland. The toleration of the Proprietaries lasted fifty years, and under it all believers in Christ were equal before the law, and all support to churches or ministers was voluntary; the Puritan toleration lasted six years, and included all but Papists, Prelatists, and those who held objectionable doctrines; the Anglican toleration lasted eighty years, and had glebes and churches for the Establishment, connivance for Dissenters, the penal laws for Catholics."—W. H. Browne, *Maryland*, ch. 11.

A. D. 1690.—The first Colonial Congress.—King William's War. See UNITED STATES OF AM.: A. D. 1690; and CANADA: A. D. 1689-1690.

A. D. 1729-1730.—The founding of Baltimore.—"Maryland had never taken kindly to towns, and though in Queen Anne's reign, in conformity with the royal wish, a number were founded, the reluctant Assembly 'erecting' them by batches—42 at once in 1706—scarcely any passed beyond the embryonic stage. . . . St. Mary's and Annapolis, the one waning as the other waxed, remained the only real towns of the colony for the first 90 years of its existence. Joppa, on the Gunpowder, was the next, and had a fair share of prosperity for 50 years and more, until her young and more vigorous rival, Baltimore, drew off her trade, and she gradually dwindled, peaked, and pined away to a solitary house and a grass-grown grave-yard, wherein slumber the mortal remains of her ancient citizens. Baltimore on the Patapsco was not the first to bear that appellation. At least two Baltimores had a name, if not a local habitation, and perished, if they can be said ever to have rightly existed, before their younger sister saw the light. . . . In 1729, the planters near the Patapsco, feeling the need of a convenient port, made application to the Assembly, and an act was passed authorising the purchase of the necessary land, whereupon 60 acres bounding on the northwest branch of the river, at the part of the harbor now called the Basin, were bought of Daniel and Charles Carroll at 40 shillings the acre. The streets and lots were laid off in the following January, and purchasers invited. The waterfronts were immediately taken up."—W. H. Browne, *Maryland*, ch. 12.

A. D. 1754.—The Colonial Congress at Albany, and Franklin's Plan of Union. See UNITED STATES OF AM.: A. D. 1754.

A. D. 1755-1760.—The French and Indian War. See CANADA: A. D. 1760-1763, to 1760; OHIO (VALLEY): A. D. 1748-1754, 1754, 1755; NOVA SCOTIA: A. D. 1749-1755, 1755; and CANADA: A. D. 1758-1760.

A. D. 1760-1767.—Settlement of the boundary dispute with Pennsylvania.—Mason and Dixon's line. See PENNSYLVANIA: A. D. 1760-1767.

A. D. 1760-1775.—Opening events of the Revolution. See UNITED STATES OF AM.: A. D. 1760-1775, to 1775; and BOSTON: A. D. 1768, to 1778.

A. D. 1776.—The end of proprietary and royal government.—Formation and adoption of a state constitution.—“In Maryland the . . . political power was vested in a Convention which created the Council of Safety and provided for the common defence. This was, however, so much under the control of the proprietary party and timid Whigs that, on the 21st of May [1776], it renewed its former instructions against independence. . . . The popular leaders determined ‘to take the sense of the people.’ . . . Meetings were called in the counties,” which promptly declared for independence, with so much effect that on the 23d of June “the British man-of-war, Fowey, with a flag of truce at her top-gallant mast, anchored before Annapolis; the next day, Governor Eden was on board; and so closed the series of royal governors on Maryland soil.”—R. Frothingham, *The Rise of the Republic*, pp. 525-527.—“Elections were held throughout the state on the 1st day of August, 1776, for delegates to a new convention to form a constitution and state government. . . . On the 14th of August this new body assembled. . . . On the 3d of November the bill of rights was adopted. On the 8th of the same month the constitution of the State was finally agreed to, and elections ordered to carry it into effect.”—J. McSherry, *Hist. of Maryland*, ch. 10.—See, also, UNITED STATES OF AM.: A. D. 1776-1779.

A. D. 1776-1783.—The War of Independence, to the Peace with Great Britain. See UNITED STATES OF AM.: A. D. 1776, to 1783.

A. D. 1776-1808.—Anti-Slavery opinion. See SLAVERY, NEGRO: A. D. 1776-1808.

A. D. 1777-1781.—Resistance to the western territorial claims of states chartered to the Pacific Ocean. See UNITED STATES OF AM.: A. D. 1781-1786.

A. D. 1787-1788.—Adoption and ratification of the Federal Constitution. See UNITED STATES OF AM.: A. D. 1787; and 1787-1789.

A. D. 1813.—The coast of Chesapeake Bay harried by the British. See UNITED STATES OF AM.: A. D. 1812-1813.

A. D. 1861 (April).—Reply of Governor Hicks to President Lincoln's call for troops. See UNITED STATES OF AM.: A. D. 1861 (APRIL).

A. D. 1861 (April).—Secession activity.—Baltimore mastered by the rebel mob.—Attack on the Sixth Massachusetts Regiment. See UNITED STATES OF AM.: A. D. 1861 (APRIL).

A. D. 1861 (April—May).—Attempted “neutrality” and the end of it. See UNITED STATES OF AM.: A. D. 1861 (APRIL—MAY: MARYLAND).

A. D. 1862 (September).—Lee's first invasion.—The battles of South Mountain and Antietam. See UNITED STATES OF AM.: A. D. 1862 (SEPTEMBER: MARYLAND).

A. D. 1863.—Lee's second invasion.—Gettysburg. See UNITED STATES OF AM.: A. D. 1863 (JUNE—JULY: PENNSYLVANIA).

A. D. 1864.—Early invasion. See UNITED STATES OF AM.: A. D. 1864 (JULY: VIRGINIA—MARYLAND).

A. D. 1867.—The founding of Johns Hopkins University. See EDUCATION, MODERN: AMERICA: A. D. 1867.

MARZOCCO.—The name given to the Florentine Lion, emblem of the Republic.

MASANIELLO'S REVOLT. See ITALY: A. D. 1646-1654.

MASCARENE ISLANDS, The.—The three contiguous islands of Mauritius, Réunion and Rodrigues, in the Indian Ocean, east of Madagascar, are collectively so called from the Portuguese navigator Mascarenhas, who discovered them in the 16th century. About the middle of the next century the Dutch attempted a settlement on Mauritius, which they named from their stadtholder, Count Maurice. In 1712 they abandoned the island, and it was occupied soon afterwards by the French, who had already planted a colony on the neighboring island, first named Isle de Bourbon, and afterwards Réunion. To Mauritius the French gave the name of the Isle of France. Under the celebrated Labourdonnais, who became governor in 1734, these islands assumed great colonial importance and became the seat of a powerful attempt to establish French ascendancy in the East. See INDIA: A. D. 1748-1752. In 1810 all three islands were surrendered to the English. Réunion was restored to France, at the peace, but the Isle of France, with its older Dutch name of Mauritius reinstated, and Rodrigues, were retained and have formed part of the British Empire since. Mauritius is a crown colony, with a representative government since 1885. It has a number of dependencies, including Rodrigues, and the Seychelles, the Chagoe islands, and the Amiantes.

MASHONALAND.—A part of the British territory of Zambesia, wrested from the Matabele (see SOUTH AFRICA: A. D. 1885-1898). It contains ruins of ancient cities unknown in origin, and is supposed to be rich in gold.

MASKOKI FAMILY OF INDIANS. See AMERICAN ABORIGINES: MUNKHOGEAN FAMILY.

MASKOUTENS, OR MASCONTENS, The. See AMERICAN ABORIGINES: SACS, &c.

MASON, John, and his grant in New Hampshire. See NEW ENGLAND: A. D. 1621-1631.

MASON AND DIXON'S LINE. See PENNSYLVANIA: A. D. 1760-1767.

MASON AND SLIDELL, The seizure of. See UNITED STATES OF AM.: A. D. 1861 (NOVEMBER).

MASORETES, OR MASSORETES.—**MASORETIC.**—When the Hebrew language had ceased to be a living language the “so-called Masoretes, or Jewish scribes, in the sixth century after the Christian era, invented a system of symbols which should represent the pronunciation of the Hebrew of the Old Testament as read, or rather chanted, at the time in the great synagogue of Tiberias in Palestine. It is in accordance with this Masoretic mode of pronunciation that Hebrew is now taught.”—A. H. Sayce, *Fresh Light from the Ancient Monuments*, ch. 3.—“Massora denotes, in general, tradition . . . ; but more especially it denotes the tradition concerning the text of the Bible. Hence those who made this special tradition their object of study were called Massoretes. . . . As there was an eastern and western, or Babylonian and Palestinian Talmud, so likewise there developed itself a twofold Massora,—a Babylonian, or

eastern, and a Palestinian, or western: the more important is the former. At Tiberias the study of the Massora had been in a flourishing condition for a long time. Here lived the famous Massorete, Aaron ben-Moses ben-Asher, commonly called Ben-Asher, in the beginning of the tenth century, who finally fixed the so-called

Massoretic text."—*Schaff-Hersog Encyclop. of Religious Knowledge.*

MASPIANS, The.—One of the tribes of the ancient Persians.—M. Duncker, *Hist. of Antiq.*, bk. 8, ch. 3.

MASSACHUSETTS, The. See AMERICAN ABORIGINES: ALGONQUIAN FAMILY.

MASSACHUSETTS.

The Name.—"The name Massachusetts, so far as I have observed, is first mentioned by Captain Smith in his 'Description of New England,' 1616. He spells the word variously, but he appears to use the term Massachuset and Massachewset to denote the country, while he adds a final 's' when he is speaking of the inhabitants. He speaks of Massachusetts Mount and Massachusetts River, using the word also in its possessive form; while in another place he calls the former 'the high mountain of Massachusit.' To this mountain, on his map, he gives the English name of 'Chevyot Hills.' Hutchinson (i. 460) supposes the Blue Hills of Milton to be intended. He says that a small hill near Squantum, the former seat of a great Indian sachem, was called Massachusetts Hill, or Mount Massachusetts, down to his time. Cotton, in his Indian vocabulary, says the word means 'a hill in the form of an arrow's head.' See, also, Neal's 'New England,' ii. 215, 216. In the Massachusetts charter the name is spelled in three or four different ways, to make sure of a description of the territory."—C. Deane, *New England (Narrative and Critical Hist. of Am., v. 3, v. 342, footnote).*

A. D. 1602.—The Bay visited by Gosnold. See AMERICA: A. D. 1602-1605.

A. D. 1605.—The Bay visited by Champlain. See CANADA: A. D. 1603-1605.

A. D. 1620.—The Pilgrim Fathers.—Whence and why they came to New England. See INDEPENDENTS OR SEPARATISTS.

A. D. 1620.—The voyage of the Mayflower.—The landing of the Pilgrims.—The founding of Plymouth colony.—The congregation of John Robinson, at Leyden, having, after long efforts, procured from the London Company for Virginia a patent or grant of land which proved useless to them, and having closed a hard bargain with certain merchants of London who supplied to some limited extent the means necessary for their emigration and settlement (see INDEPENDENTS, OR SEPARATISTS: A. D. 1617-1620), were prepared, in the summer of 1620, to send forth the first pilgrims from their community, across the ocean, seeking freedom in the worship of God. "The means at command provided only for sending a portion of the company; and 'those that stayed, being the greater number, required the pastor to stay with them,' while Elder Brewster accompanied, in the pastor's stead, the almost as numerous minority who were to constitute a church by themselves; and in every church, by Robinson's theories, the 'governing elder,' next in rank to the pastor and the teacher, must be 'apt to teach.' A small ship, the 'Speedwell,'—of some 80 tons burden, was bought and fitted out in Holland, and early in July those who were ready for the formidable voyage, being 'the youngest and strongest part,'

left Leyden for embarkation at Delft-Haven, nearly 20 miles to the southward,—sad at the parting, 'but,' says Bradford, 'they knew that they were pilgrims.' About the middle of the second week of the month the vessel sailed for Southampton, England. On the arrival there they found the 'Mayflower,' a ship of about 180 tons burden, which had been hired in London, awaiting them with their fellow passengers,—partly laborers employed by the merchants, partly Englishmen like-minded with themselves, who were disposed to join the colony. Mr. Weston, also, was there, to represent the merchants; but, when discussion arose about the terms of the contract, he went off in anger, leaving the contract unsigned, and the arrangements so incomplete that the Pilgrims were forced to dispose of sixty pounds' worth of their not abundant stock of provisions to meet absolutely necessary charges. The ships, with perhaps 120 passengers, put to sea about August 5/15, with hopes of the colony being well settled before winter; but the 'Speedwell' was soon pronounced too leaky to proceed without being overhauled, and so both ships put in at Dartmouth, after eight days' sail. Repairs were made, and before the end of another week they started again; but when about a hundred leagues beyond Land's End, Reynolds, the master of the 'Speedwell,' declared her in imminent danger of sinking, so that both ships again put about. On reaching Plymouth Harbor it was decided to abandon the smaller vessel, and thus to send back those of the company whom such a succession of mishaps had disheartened. . . . It was not known till later that the alarm over the 'Speedwell's' condition was owing to deception practised by the master and crew. . . . At length, on Wednesday, September 6/16, the Mayflower left Plymouth, and nine weeks from the following day, on November 9/19, sighted the eastern coast of Cape Cod. She took from Plymouth 102 passengers, besides the master and crew; on the voyage one man-servant died and one child was born, making 102 (73 males and 29 females) who reached their destination. Of these, the colony proper consisted of 34 adult males, 18 of them accompanied by their wives and 14 by minor children (20 boys and 8 girls); besides these, there were 3 maid-servants and 19 men-servants, sailors, and craftsmen,—5 of them only half-grown boys,—who were hired for temporary service. Of the 34 men who were the nucleus of the colony, more than half are known to have come from Leyden; in fact, but 4 of the 34 are certainly known to be of the Southampton accessions. . . . And whither were they bound? As we have seen, a patent was secured in 1619 in Mr. Wincob's name; but 'God so disposed as he never went nor they ever made use of this

patent,' says Bradford,—not however making it clear when the intention of colonizing under this instrument was abandoned. The 'merchant adventurers' while negotiating at Leyden seem to have taken out another patent from the Virginia Company, in February, 1620, in the names of John Peirce and of his associates; and this was more probably the authority under which the Mayflower voyage was undertaken. As the Pilgrims had known before leaving Holland of an intended grant of the northern parts of Virginia to a new company,—the Council for New England,—when they found themselves off Cape Cod, 'the patent they had being for Virginia and not for New England, which belonged to another Government, with which the Virginia Company had nothing to do,' they changed the ship's course, with intent, says Bradford, 'to find some place about Hudson's River for their habitation,' and so fulfil the conditions of their patent; but difficulties of navigation and opposition from the master and crew caused the exiles, after half a day's voyage, to retrace their course and seek a resting-place on the nearest shore. . . . Their radical change of destination exposed the colonists to a new danger. As soon as it was known, some of the hired laborers threatened to break loose (upon landing) from their engagements, and to enjoy full license, as a result of the loss of the authority delegated in the Virginia Company's patent. The necessity of some mode of civil government had been enjoined on the Pilgrims in the farewell letter from their pastor, and was now availed of to restrain these insurgents and to unite visibly the well-affected. A compact, which has often been eulogized as the first written constitution in the world, was drawn up. . . . Of the 41 signers to this compact, 84 were the adults called above the nucleus of the colony, and seven were servants or hired workmen; the seven remaining adult males of the latter sort were perhaps too ill to sign with the rest (all of them soon died), or the list of signers may be imperfect. This needful preliminary step was taken on Saturday, November 11/21, by which time the Mayflower had rounded the Cape and found shelter in the quiet harbor on which now lies the village of Provincetown; and probably on the same day they 'chose, or rather confirmed,' as Bradford has it, . . . Mr. John Carver governor for the ensuing year. On the same day an armed delegation visited the neighboring shore, finding no inhabitants. There were no attractions, however, for a permanent settlement, nor even accommodations for a comfortable encampment while such a place was being sought." Some days were spent in exploring Cape Cod Bay, and the harbor since known as Plymouth Bay was chosen for the settlement of the colony. The exploring party landed, as is believed, at the famous Rock, on Monday December 11/21. "Through an unfortunate mistake, originating in the last century, the 22d has been commonly adopted as the true date. . . . Tradition divides the honor of being the first to step on Plymouth Rock between John Alden and Mary Chilton, but the date of their landing must have been subsequent to December 11 [N. S. 21]." It was not till the end of the week, December 16/26, that the Mayflower was anchored in the chosen haven. "The selection of a site and the preparation of materials, in uncertain weather, delayed till Monday, the 25th [Jan. 4, N. S.] the

beginning of 'the first house for common use, to receive them and their goods.' Before the new year, house-lots were assigned to families, and by the middle of January most of the company had left the ship for a home on land."—F. B. Dexter, *The Pilgrim Church and Plymouth Colony (Narrative and Critical Hist. of Am., v. 3, ch. 8, with foot-notes)*.—"Before the Pilgrims landed, they by a solemn instrument founded the Puritan republic. The tone of this instrument and the success of its authors may afford a lesson to revolutionists who sever the present from the past with the guillotine, fling the illustrious dead out of their tombs, and begin history again with the year one. These men had been wronged as much as the Jacobins. 'In the name of God. Amen. We whose names are underwritten, the loyal subjects of our dread Sovereign Lord King James, by the grace of God of Great Britain and Ireland, defender of the faith, etc., having undertaken, for the glory of God and advancement of the Christian faith, and honour of our king and country, a voyage to plant the first colony in the northern parts of Virginia, do by these presents solemnly and mutually, in the presence of God and of one another, covenant and combine ourselves together into a civil body politic for our better ordering and preservation, and for the furtherance of the ends aforesaid; and by virtue hereof to exact, constitute, and frame such just and equal laws, ordinances and acts, constitutions and offices, from time to time, as shall be thought most meet for the general good of the colony, unto which we promise all due submission and obedience.' And then follows the roll of plebeian names, to which the Roll of Battle Abbey is a poor record of nobility. There are points in history at which the spirit which moves the whole shows itself more clearly through the outward frame. This is one of them. Here we are passing from the feudal age of privilege and force to the age of due submission and obedience, to just and equal offices and laws, for our better ordering and preservation. In this political covenant of the Pilgrim fathers lies the American Declaration of Independence. From the American Declaration of Independence was borrowed the French Declaration of the Rights of Man. France, rushing ill-prepared, though with overweening confidence, on the great problems of the eighteenth century, shattered not her own hopes alone, but nearly at the same moment the Puritan Republic, breaking the last slight link that bound it to feudal Europe, and placing modern society firmly and tranquilly on its new foundation. To the free States of America we owe our best assurance that the oldest, the most famous, the most cherished of human institutions are not the life, nor would their fall be the death, of social man; that all which comes of Charlemagne, and all which comes of Constantine, might go to the tombs of Charlemagne and Constantine, and yet social duty and affection, religion and worship, free obedience to good government, free reverence for just laws, continue as before. They who have achieved this have little need to talk of Bunker's Hill."—Goldwin Smith, *On the Foundation of the Am. Colonies (Lects. on the Study of Hist.)*.

ALSO IN: W. Bradford, *Hist. of Plymouth Plantation (Mass. Hist. Soc. Coll., 4th series, v. 3), bk. 1*.—Mourt's Relation, or Journal of the Plantation.

at Plymouth; ed. by H. M. Dexter.—J. S. Barry, *Hist. of Mass.*, v. 1, ch. 8.

A. D. 1621.—The first year of the Plymouth Colony and its sufferings.—The Pierce patent.—The naming of Plymouth.—“The labor of providing habitations had scarcely begun, when sickness set in, the consequence of exposure and bad food. Within four months it carried off nearly half their number. Six died in December, eight in January, seventeen in February, and thirteen in March. At one time during the winter, only six or seven had strength enough left to nurse the dying and bury the dead. Des titute of every provision, which the weakness and the daintiness of the invalid require, the sick lay crowded in the unwholesome vessel, or in half-built cabins heaped around with snow-drifts. The rude sailors refused them even a share of those coarse sea-stores which would have given a little variety to their diet, till disease spread among the crew, and the kind ministrations of those whom they had neglected and affronted brought them to a better temper. The dead were interred in a bluff by the water-side, the marks of burial being carefully effaced, lest the natives should discover how the colony had been weakened. . . . Meantime, courage and fidelity never gave out. The well carried out the dead through the cold and snow, and then hastened back from the burial to wait on the sick; and as the sick began to recover, they took the places of those whose strength had been exhausted.” In March, the first intercourse of the colonists with the few natives of the region was opened, through Samoset, a friendly Indian, who had learned from fishermen on the more eastern coast to speak a little English. Soon afterwards, they made a treaty of friendship and alliance with Massasoit, the chief of the nearest tribe, which treaty remained in force for 54 years. On the 5th of April the Mayflower set sail on her homeward voyage, “with scarcely more than half the crew which had navigated her to America, the rest having fallen victims to the epidemic of the winter. . . . She carried back not one of the emigrants, dispiriting as were the hardships which they had endured, and those they had still in prospect.” Soon after the departure of the Mayflower, Carver, the Governor, died. “Bradford was chosen to the vacant office, with Isaac Allerton, at his request, for his Assistant. Forty-six of the colonists of the Mayflower were now dead,—28 out of the 48 adult men. Before the arrival of the second party of emigrants in the autumn, the dead reached the number of 51, and only an equal number survived the first miseries of the enterprise. . . . Before the winter set in, tidings from England had come, to relieve the long year’s lonesomeness; and a welcome addition was made to the sadly diminished number. The Fortune, a vessel of 55 tons’ burden, reached Plymouth after a passage of four months, with Cushman and some 30 other emigrants. The men who now arrived outnumbered those of their predecessors who were still living. . . . Some were old friends of the colonists, at Leyden. Others were persons who added to the moral as well as to the numerical strength of the settlement. But there were not wanting such as became subjects for anxiety and coercion.” The Fortune also brought to the colonists a patent from the Council for New England, as it was commonly known—the corporation into which

the old Plymouth Company, or North Virginia branch of the Virginia Company, had been transformed (see NEW ENGLAND: ‘A. 1,’ 1620-1623). “Upon lands of this corporation Bradford and his companions had sat down without leave, and were of course liable to be summarily expelled. Informed of their position by the return of the Mayflower to England in the spring, their friends obtained from the Council a patent which was brought by the Fortune. It was taken out in the name of ‘John Pierce, citizen and cloth-worker of London, and his associates,’ with the understanding that it should be held in trust for the Adventurers, of whom Pierce was one. It allowed 100 acres of land to every colonist gone and to go to New England, at a yearly rent of two shillings an acre after seven years. It granted 1,500 acres for public uses, and liberty to ‘hawk, fish, and fowl’; to ‘truck, trade, and traffic with the savages’; to ‘establish such laws and ordinances as are for their better government, and the same, by such officer or officers as they shall by most voices elect and choose, to put in execution’; and ‘to encounter, expulse, repel, and resist by force of arms’ all intruders. . . . The instrument was signed for the Council by the Duke of Hamilton, the Duke of Lenox, the Earl of Warwick, Lord Sheffield, and Sir Ferdinando Gorges. . . . The precise time of the adoption of the name which the settlement has borne since its first year is not known. Plymouth is the name recorded on Smith’s map as having been given to the spot by Prince Charles. It seems very likely that the emigrants had with them this map, which had been much circulated. . . . Morton (Memorial, 56) assigns as a reason for adopting it that ‘Plymouth in Old England was the last town they left in their native country, and they received many kindnesses from some Christians there.’ In Mount, ‘Plymouth’ and ‘the now well-defended town of New Plymouth’ are used as equivalent. Later, the name Plymouth came to be appropriated to the town, and New Plymouth to the Colony.”—J. G. Palfrey, *Hist. of N. Eng.*, v. 1, ch. 5, and foot-note. Also in: J. A. Goodwin, *The Pilgrim Republic*, ch. 9-16.—F. Baylies, *Hist. Memoir of the Colony of New Plymouth*, v. 1, ch. 5-6.—A. Young, *Chronicles of the Pilgrim Fathers*.

A. D. 1622-1623.—Weston at Wessagusset, Morton at Merrymount, and other settlements.—“During the years immediately following the voyage of the Mayflower, several attempts at settlement were made about the shores of Massachusetts bay. One of the merchant adventurers, Thomas Weston, took it into his head in 1622 to separate from his partners and send out a colony of seventy men on his own account. These men made a settlement at Wessagusset, some twenty-five miles north of Plymouth. They were a disorderly, thriftless rabble, picked up from the London streets, and soon got into trouble with the Indians; after a year they were glad to get back to England as best they could, and in this the Plymouth settlers willingly aided them. In June of that same year 1622 there arrived on the scene a picturesque but ill understood personage, Thomas Morton, ‘of Clifford’s Inn, Gent.’, as he tells on the title-page of his quaint and delightful book, the ‘New English Canaan.’ Bradford disparagingly says that he ‘had been a kind of pettifogger of Furnifell’s Inn’; but the churchman

Samuel Maverick declares that he was a 'gentleman of good qualittie.' He was an agent of Sir Ferdinando Gorges, and came with some thirty followers to make the beginnings of a royalist and Episcopal settlement in the Massachusetts bay. He was naturally regarded with ill favour by the Pilgrims as well as by the later Puritan settlers, and their accounts of him will probably bear taking with a grain or two of salt. In 1625 there came one Captain Wollaston, with a gang of indented white servants, and established himself on the site of the present town of Quincy. Finding this system of industry ill suited to northern agriculture, he carried most of his men off to Virginia, where he sold them. Morton took possession of the site of the settlement, which he called Merrymount. There, according to Bradford, he set up a 'schoole of athisme,' and his men did quaff strong waters and comport themselves 'as if they had anew revived and celebrated the feasts of ye Roman Goddess Flora, or the beastly practices of ye madd Bachanalians.' Charges of atheism have been freely hurled about in all ages. In Morton's case the accusation seems to have been based upon the fact that he used the Book of Common Prayer. His men so far maintained the ancient customs of merry England as to plant a Maypole eighty feet high, about which they frolicked with the redskins, while furthermore they taught them the use of firearms and sold them muskets and rum. This was positively dangerous, and in the summer of 1628 the settlers at Merrymount were dispersed by Miles Standish. Morton was sent to England, but returned the next year, and presently again repaired to Merrymount. By this time other settlements were dotted about the coast. There were a few scattered cottages or cabins at Nantasket and at the mouth of the Piscataqua, while Samuel Maverick had fortified himself on Noddle's Island, and William Blackstone already lived upon the Shawmut peninsula, since called Boston. These two gentlemen were no friends to the Puritans; they were churchmen and representatives of Sir Ferdinando Gorges."—J. Fiske, *The Beginnings of N. Eng.*, ch. 3.

ALSO IN: C. F. Adams, Jr., *Old Planters about Boston Harbor* (Mass. Hist. Soc. Proceed., June, 1878).—The same, *Introd. to Morton's New English Canaan* (Prince Soc., 1883).

A. D. 1623.—Grant to Robert Gorges on the Bay. See NEW ENGLAND: A. D. 1621-1631.

A. D. 1623-1629.—Plymouth Colony.—Land allotments.—Buying freedom from the adventurers at London.—The new patent.—"In 1623 the Ann and Little James, the former of 140 tons, and the latter of 44 tons, arrived with 60 persons to be added to the colony, and a number of others who had come at their own charge and on their own account. . . . The passengers in the Ann and Little James completed the list of those who are usually called the first-comers. The Ann returned to England in September, carrying Mr. Winslow to negotiate with the merchants for needful supplies, and the Little James remained at Plymouth in the service of the company. . . . Up to that time the company had worked together on the company lands, and, each sharing in the fruits of another's labors, felt little of that personal responsibility which was necessary to secure the largest returns. . . . At length, after much debate of things, the Governor (with the

advise of the cheefest amongst them) gave way that they should set corne every man for his owne perticuler, and in that regard trust to themselves; in all other things to goe on in the generall way as before. And so assigned to every family a parcell of land, according to the proportion of their number for that end. . . . This had very good success; for it made all hands very industrious. . . . Such is the language of Bradford concerning a measure which was adopted from motives of necessity, but which was, to a certain extent, an infringement of the provisions of the contract with the adventurers. Before the planting season of the next year a more emphatic violation of the contract was committed. 'They (the colony) begane now highly to prise corne as more pretious then silver, and those that had some to spare begane to trade one with another for smale things, by the quarte, pottle, & peck & C.: for money they had none, and if any had, corne was preferred before it. That they might therfore encrease their tillage to better advantage, they made suite to the Governor to have some portion of land given them for continuance, and not by yearly lotte. . . . Which being well considered, their request was granted. And to every person was given only one acre of land, to them and theirs, as nere the towne as might be, and they had no more till the 7 years were expired.' This experience gradually led the colony in the right track, and the growing necessity for some other circulating medium than silver secured abundant harvests." Winslow returned from England in 1624, "bringing, besides a good supply, '8 heifers & a bull the first beginning of any catle of that kind in the land.' At that time there were 180 persons in the colony, 'some catle and goats, but many swine and poultry and thirty-two dwelling houses.' In the latter part of the year Winslow sailed again for England in the Little James and returned in 1625. The news he brought was discouraging to the colonists. The debt due to the adventurers was £1,400, and the creditors had lost confidence in their enterprise." On this intelligence, Capt. Standish was sent to England, followed next year by Mr. Allerton, "to make a composition with the adventurers," and obtain, if possible, a release from the seven years contract under which the colonists were bound. Allerton returned in 1627, having concluded an agreement with the adventurers at London for the purchase of all their rights and interests in the plantation, for the sum of £1,800. The agreement was approved by the colony. and Bradford, Standish, Allerton, Winslow, Brewster, Howland, Alden, and others, assumed the debt of £1,800, the trading privileges of the colony being assigned to them for their security. "In accordance with this agreement these gentlemen at once entered vigorously into the enterprise, and by the use of wampum, as a circulating medium, carried on so extensive a trade with the natives, in the purchase of furs and other articles for export to England as within the prescribed period [six years] to pay off the entire debt and leave the colony in the undisputed possession of their lands. No legal-tender scheme, in these later days, has been bolder in its conception, or more successful in its career, than that of the Pilgrim Fathers, which, with the shells of the shore, relieved their community from debt, and established on a permanent basis the wealth and prosperity of New England. . . . After the negotiations

with the adventurers had been completed, the colonists were anxious to obtain another patent from the New England Company conferring larger powers and defining their territorial limits. After three visits to England, Ailerton was sent a fourth time, in 1629, and secured a patent dated January 13, 1629 (old style), and signed by the Earl of Warwick on behalf of the Council of New England, enlarging the original grant, and establishing the boundaries of what has been since known as the Old Colony. It granted to William Bradford and his associates "all that part of New England in America, the tract and tracts of land that lie within or between a certain rivolet or rundlett, then commonly called Coahasset alias Conahasset, towards the north, and the river commonly called Naragauset river towards the south, and the great Western ocean towards the east," and between two lines described as extending, severally, from the mouth of the Naragauset and the mouth of the Coahasset, "up into the mainland westward," "to the utmost limits and bounds of a country or place in New England called Pokernacutt, alias Puckenakick, alias Sawaamset."—W. T. Davis, *Ancient Landmarks of Plymouth*, ch. 2.

A. D. 1623-1629.—The Dorchester Company and the royal Charter to the Governor and Company of Massachusetts Bay.—"While the people of Plymouth were struggling to establish their colony, some of the English Puritans, restless under the growing despotism of Charles, began to turn their eyes to New England. Under the lead of the Rev. John White, the Dorchester Company was formed for trading and fishing, and a station was established at Cape Ann [A. D. 1623]; but the enterprise did not prosper, the colonists were disorderly, and the Company made an arrangement for Roger Conant and others, driven from Plymouth by the rigid principles of the Separatists, to come to Cape Ann. Still matters did not improve and the Company was dissolved; but White held to his purpose, and Conant and a few others moved to Naumkeag, and determined to settle there. Conant induced his companions to persevere, and matters in England led to a fresh attempt; for discontent grew rapidly as Charles proceeded in his policy. A second Dorchester Company, not this time a small affair for fishing and trading, but one backed by men of wealth and influence, was formed, and a large grant of lands [from three miles north of the Merrimac to three miles south of the Charles, and to extend from the Atlantic to the Western Ocean] was made by the Council for New England to Sir Henry Roswell and five others [March, 1628]. One of the six patentees, John Endicott, went out during the following summer with a small company, assumed the government at Naumkeag, which was now called Salem, and sent out exploring parties. The company thus formed in England was merely a voluntary partnership, but it paved the way for another and much larger scheme. Disaffection had become wide-spread. The Puritans began to fear that religious and political liberty alike were not only in danger but were doomed to destruction, and a large portion of the party resolved to combine for the preservation of all that was dearest to them by removal to the New World. The Dorchester Company was enlarged, and a royal charter was obtained incorporating the Governor and Company of Massachusetts Bay,"

March 4, 1629.—H. C. Lodge, *Short Hist. of the Eng. Colonies in Am.*, ch. 18.—"This [the royal charter named above] is the instrument under which the Colony of Massachusetts continued to conduct its affairs for 55 years. The patentees named in it were Roswell and his five associates, with 20 other persons, of whom White was not one. It gave power forever to the freemen of the Company to elect annually, from their own number, a Governor, Deputy-Governor, and 18 Assistants, on the last Wednesday of Easter term, and to make laws and ordinances not repugnant to the laws of England, for their own benefit and the government of persons inhabiting their territory. Four meetings of the Company were to be held in a year, and others might be convened in a manner prescribed. Meetings of the Governor, Deputy-Governor, and Assistants, were to be held once a month or oftener. The Governor, Deputy-Governor, and any two Assistants, were authorized, but not required, to administer to freemen the oaths of supremacy and allegiance. The Company might transport settlers not 'restrained by special name.' They had authority to admit new associates, and establish the terms of their admission, and elect and constitute such officers as they should see fit for the ordering and managing of their affairs. They were empowered to 'encounter, repulse, repel, and resist by force of arms . . . all such person and persons as should at any time thereafter attempt or enterprize the destruction, invasion, detriment, or annoyance to the said plantation or inhabitants.' Nothing was said of religious liberty. The government may have relied upon its power to restrain it, and the emigrants on their distance and obscurity to protect it."—J. G. Palfrey, *Hist. of N. Eng.*, v. 1, ch. 8.—"In anticipation of a future want the grantees resisted the insertion of any condition which should fix the government of the Company in England. Winthrop explicitly states that the advisers of the Crown had originally imposed such a condition, but that the patentees succeeded, not without difficulty, in freeing themselves from it. That fact is a full answer to those who held that in transferring the government to America the patentees broke faith with the Crown."—J. A. Doyle, *The English in Am.: The Puritan Colonies*, v. 1, ch. 3.

ALSO IN: *Records of the Gov. and Co. of Mass. Bay*; ed. by N. B. Shurtleff, v. 1 (containing the Charter).—S. F. Haven, *Origin of the Company* (*Archæologia Americana*, v. 3).

A. D. 1629-1630.—The immigration of the Governor and Company of Massachusetts Bay, with their Royal Charter.—"Several persons, of considerable importance in the English nation, were now enlisted among the adventurers, who, for the unmolested enjoyment of their religion, were resolved to remove into Massachusetts. Foreseeing, however, and dreading the inconvenience of being governed by laws made for them without their own consent, they judged it more reasonable that the colony should be ruled by men residing in the plantation, than by those dwelling at a distance of three thousand miles, and over whom they should have no control. At a meeting of the company on the 28th of July [1629], Matthew Cradock, the governor, proposed that the charter should be transferred to those of the freemen who should become inhabitants of the colony, and the powers conferred

by it be executed for the future in New England. An agreement was accordingly made at Cambridge, in England, on the 26th of August, between Sir Richard Saltonstall, Thomas Dudley, Isaac Johnson, John Winthrop, and a few others, that, on those conditions, they would be ready the ensuing March, with their persons and families, to embark for New England, for the purpose of settling in the country. The governor and company, entirely disposed to promote the measure, called a general court [at which, after a serious debate, adjourned from one day to the next,] . . . it was decreed that the government and the patent of the plantation should be transferred from London to Massachusetts Bay. An order was drawn up for that purpose, in pursuance of which a court was holden on the 20th of October for a new election of officers, who would be willing to remove with their families; and 'the court having received extraordinary great commendation of Mr. John Winthrop, both for his integrity and sufficiency, as being one very well fitted for the place, with a full consent chose him governor for the year ensuing.' . . . Preparations were now made for the removal of a large number of colonists, and in the spring of 1630 a fleet of 14 sail was got ready. Mr. Winthrop having by the consent of all been chosen for their leader, immediately set about making preparations for his departure. He converted a fine estate of £600 or £700 per annum into money and in March embarked on board the *Arbella*, one of the principal ships. Before leaving Yarmouth, an address to their fathers and brethren remaining in England was drawn up, and subscribed on the 7th of April by Governor Winthrop and others, breathing an affectionate farewell to the Church of England and their native land. . . . In the same ship with Governor Winthrop came Thomas Dudley, who had been chosen deputy governor after the embarkation, and several other gentlemen of wealth and quality; the fleet containing about 840 passengers, of various occupations, some of whom were from the west of England, but most from the neighborhood of London. The fleet sailed early in April; and the *Arbella* arrived off Cape Ann on Friday, the 11th of June, and on the following day entered the harbor of Salem. A few days after their arrival, the governor, and several of the principal persons of the colony, made an excursion some 20 miles along the bay, for the purpose of selecting a convenient site for a town. They finally pitched down on the north side of Charles river (Charlestown), and took lodgings in the great house built there the preceding year; the rest of the company erected cottages, booths, and tents, for present accommodation, about the town hill. Their place of assembling for divine service was under a spreading tree. On the 8th of July, a day of thanksgiving was kept for the safe arrival of the fleet. On the 30th of the same month, after a day of solemn prayer and fasting, the foundation of a church was laid at Charlestown, afterwards the first church of Boston, and Governor Winthrop, Deputy Governor Dudley, and the Rev. Mr. Wilson, entered into church covenant. The first court of assistants was held at Charlestown, on the 23d of August, and the first question proposed was a suitable provision for the support of the gospel. Towards the close of autumn, Governor Winthrop and most of the assistants removed to the peninsula of Shaw-

mut (Boston), and lived there the first winter, intending in the spring to build a fortified town, but undetermined as to its situation. On the 6th of December they resolved to fortify the isthmus of that peninsula; but, changing their minds before the month expired, they agreed upon a place about three miles above Charlestown, which they called first Newtown, and afterwards Cambridge, where they engaged to build houses the ensuing spring. The rest of the winter they suffered much by the severity of the season, and were obliged to live upon acorns, groundnuts, and shell-fish. . . . They had appointed the 6th of February for a fast, in consequence of their alarm for the safety of a ship which had been sent to Ireland for provisions; but fortunately the vessel arrived on the 5th, and they ordered a public thanksgiving instead thereof." — J. B. Moore, *Lives of the Governors of New Plymouth and Mass. Bay*; pt. 2: *Winthrop*.

ALSO IN: R. C. Winthrop, *Life and Letters of John Winthrop*, v. 1, ch. 15-19, and v. 2, ch. 1-4. — A. Young, *Chronicles of the first Planters of Massachusetts Bay*, ch. 14-19. — J. S. Barry, *Hist. of Mass.*, v. 1, ch. 7.

A. D. 1630. — The founding of Boston. — "The English people who came with Governor Winthrop first located upon the peninsula of Mishawum, which they called Charlestown. . . . They found here a single white man named Thomas Walford, living very peaceably and contentedly among the Indians. They also discovered that the peninsula of Shawmut had one solitary white inhabitant whose name was William Blackstone. They could see every day the smoke curling above this man's lonely cabin. He, too, was a Puritan clergyman, like many of those who had now come to make a home in the New World, free from the tyranny of the English bishops. Still another Englishman, Samuel Maverick by name, had built a house, and with the help of David Thompson, a fort which mounted four small cannon, truly called 'murderers,' and was living very comfortably on the island that is now East Boston. And again, by looking across the bay, to the south, the smoke of an English cottage, on Thompson's Island, was probably seen stealing upward to the sky. So that we certainly know these people were the first settlers of Boston. But scarcity of water, and sickness, which soon broke out among them, made the settlers at Charlestown very discontented. They began to scatter. Indeed this peninsula was too small properly to accommodate all of them with their cattle. Therefore good William Blackstone, with true hospitality, came in their distress to tell them there was a fine spring of pure water at Shawmut, and to invite them there. Probably his account induced quite a number to remove at once; while others, wishing to make farms, looked out homes along the shores of the mainland, at Medford, Newtown (Cambridge), Watertown and Roxbury. A separate company of colonists also settled at Mattapan, or Dorchester. The dissatisfaction with Charlestown was so general that at last only a few of the original settlers remained there. . . . While those in chief authority were still undecided, Isaac Johnson, one of the most influential and honored men among the colonists, began, with others, in earnest, the settlement of Boston. He chose for himself the square of land now enclosed by Tremont, Court,

Washington and School Streets. Unfortunately this gentleman, who was much beloved, died before the removal to Boston became general. . . . Although the chief men of the colony continued for some time yet to favor the plan of a fortified town farther inland, Boston had now become too firmly rooted, and the people too unwilling, to make a second change of location practicable, or even desirable. So this project was abandoned, though not before high words passed between Winthrop and Dudley about it. The governor then removed the frame of his new house from Cambridge, or Newtown, to Boston, setting it up on the land between Milk Street, Spring Lane, and Washington Street. One of the finest springs being upon his lot, the name Spring Lane is easily traced. The people first located themselves within the space now comprised between Milk, Bromfield, Tremont, and Hanover Streets, and the water, or, in general terms, upon the southeasterly slope of Beacon Hill. Pemberton Hill soon became a favorite locality. The North End, including that portion of the town north of Union Street, was soon built up by the new emigrants coming in, or by removals from the South End, as all the town south of this district was called. In time a third district on the north side of Beacon Hill grew up, and was called the West End. And in the old city these general divisions continue to-day. Shawmut, we remember, was the first name Boston had. Now the settlers at Charlestown, seeing always before them a high hill topped with three little peaks, had already, and very aptly too, we think, named Shawmut Trimountain [the origin of the name Tremont in Boston]. But when they began to remove there they called it Boston, after a place of that name in England, and because they had determined beforehand to give to their chief town this name. So says the second highest person among them, Deputy Governor Thomas Dudley. The settlers built their first church on the ground now covered by Brazier's Building, in State Street. . . . Directly in front of the meeting-house was the town market-place. Where Quincy Market is was the principal landing-place. The Common was set apart as a pasture-ground and training-field. . . . A beacon was set up on the summit of Trimountain and a fort upon the southernmost hill of the town. From this time these hills took the names of Windmill, Beacon, and Fort Hills."—S. A. Drake, *Around the Hub*, ch. 2.—"The order of the Court of Assistants,—Governor Winthrop presiding.—'That Trimontaine shall be called Boston,' was passed on the 7th of September, old style, or, as we now count it, the 17th of September, 1630. The name of Boston was specially dear to the Massachusetts colonists, from its association with the old St. Botolph's town, or Boston, of Lincolnshire, England, from which the Lady Arbella Johnson and her husband had come, and where John Cotton was still preaching in its noble parish church. But the precise date of the removal of the Governor and Company to the peninsula is nowhere given."—R. C. Winthrop, *Boston Founded* (*Memorial Hist. of Boston*; ed. by J. Winsor, v. 1), pp. 116-117.

Also in: C. F. Adams, Jr., *Earliest Expl. and Settlement of Boston Harbor* (*Mem. Hist.*, pp. 68-86).

A. D. 1631-1636.—The Puritan Theocracy and its intolerance.—"The charter of the Mas-

sachusetts Company had prescribed no condition of investment with its franchise,—or with what under the circumstances which had arisen was the same thing, the prerogatives of citizenship in the plantation,—except the will and vote of those who were already freemen. At the first Cisatlantic General Court for election, 'to the end the body of the commons may be preserved of honest and good men,' it was 'ordered and agreed, that, for the time to come, no man shall be admitted to the freedom of this body politic, but such as are members of some of the churches within the limits of the same.' The men who laid this singular foundation for the commonwealth which they were instituting, had been accustomed to feel responsibility, and to act upon well-considered reasons. By charter from the English crown, the land was theirs as against all other civilized people, and they had a right to choose according to their own rules the associates who should help them to occupy and govern it. Exercising this right, they determined that magistracy and citizenship should belong only to Christian men, ascertained to be such by the best test which they knew how to apply. They established a kind of aristocracy hitherto unknown."—J. G. Palfrey, *Hist. of N. Eng.*, v. 1, ch. 9.—"The aim of Winthrop and his friends in coming to Massachusetts was the construction of a theocratic state which should be to Christians, under the New Testament dispensation, all that the theocracy of Moses and Joshua and Samuel had been to the Jews in Old Testament days. They should be to all intents and purposes freed from the jurisdiction of the Stuart king, and so far as possible the text of the Holy Scriptures should be their guide both in weighty matters of general legislation and in the shaping of the smallest details of daily life. In such a scheme there was no room for religious liberty as we understand it."—J. Fiske, *The Beginnings of New England*, ch. 4.—"The projected religious commonwealth was to be founded and administered by the Bible, the whole Bible, not by the New Testament alone. . . . They revered and used and treated the Holy Book as one whole. A single sentence from any part of it was an oracle to them: it was as a slice or crumb from any part of a loaf of bread, all of the same consistency. God, as King, had been the Lawgiver of Israel: he should be their Lawgiver too. . . . The Church should fashion the State and be identical with it. Only experienced and covenanted Christian believers, pledged by their profession to accordance of opinion and purpose with the original proprietors and exiles, should be admitted as freemen, or full citizens of the commonwealth. They would restrain and limit their own liberty of conscience, as well as their own freedom of action, within Bible rules. In fact,—in spirit even more than in the letter,—they did adopt all of the Jewish code which was in any way practicable for them. The leading minister of the colony was formally appointed by the General Court to adapt the Jewish law to their case [1636]; and it was enacted that, till that work was really done, 'Moses, his Judicia,' should be in full force. Mr. Cotton in due time presented the results of his labor in a code of laws illustrated by Scripture texts. This code was not formally adopted by the Court; but the spirit of it, soon rewrought into another body, had full away. . . . That frankly

avowed and practically applied purpose of the Fathers, of establishing here a Bible Commonwealth, 'under a due form of government, both civil and ecclesiastical,' furnishes the key to, the explanation of, all dark things and all the bright things in their early history. The young people educated among us ought to read our history by that simple, plain interpretation. The consciences of our Fathers were not free in our sense of that word. They were held under rigid subjection to what they regarded as God's Holy Word, through and through in every sentence of it, just as the consciences of their Fathers were held, under the sway of the Pope and the Roman Church. The Bible was to them supreme. Their church was based on it, modelled by it, governed by it; and they intended their State should be also."—G. E. Ellis, *Lowell Inst. Lects. on the Early Hist. of Mass.*, pp. 50-55.—"Though communicants were not necessarily voters, no one could be a voter who was not a communicant; therefore the town-meeting was nothing but the church meeting, possibly somewhat attenuated, and called by a different name. By this insidious statute the clergy seized the temporal power, which they held till the charter fell. The minister stood at the head of the congregation and moulded it to suit his purposes and to do his will. . . . Common men could not have kept this hold upon the inhabitants of New England, but the clergy were learned, resolute, and able, and their strong but narrow minds burned with fanaticism and love of power; with their beliefs and under their temptations persecution seemed to them not only their most potent weapon, but a duty they owed to Christ—and that duty they unflinchingly performed."—B. Adams, *The Emancipation of Mass.*, ch. 1.

ALSO IN: J. S. Barry, *Hist. of Mass.*, v. 1, ch. 10.—P. Oliver, *The Puritan Commonwealth*, ch. 2, pt. 1.—D. Campbell, *The Puritan in Holland, Eng., and Am.*, ch. 22 (n. 2).

A. D. 1633-1635.—Hostilities between the Plymouth Colony and the French on the Maine coast. See NOVA SCOTIA: A. D. 1621-1668.

A. D. 1634-1637.—Threatening movements in England.—The Charter demanded.—"That the government of Charles I. should view with a hostile eye the growth of a Puritan state in New England is not at all surprising. The only fit ground for wonder would seem to be that Charles should have been willing at the outset to grant a charter to the able and influential Puritans who organized the Company of Massachusetts Bay. Probably, however, the king thought at first it would relieve him at home if a few dozen of the Puritan leaders could be allowed to concentrate their minds upon a project of colonization in America. It might divert attention for a moment from his own despotic schemes. Very likely the scheme would prove a failure and the Massachusetts colony incur a fate like that of Roanoke Island; and at all events the wealth of the Puritans might better be sunk in a remote and perilous enterprise than employed at home in organizing resistance to the crown. Such, very likely, may have been the king's motive in granting the Massachusetts charter two days after turning his Parliament out of doors. But the events of the last half-dozen years had come to present the case in a new light. The young colony was not languishing. It was full of

sturdy life; it had wrought mischief to the schemes of Gorges; and what was more, it had begun to take unheard-of liberties with things ecclesiastical and political. Its example was getting to be a dangerous one. It was evidently worth while to put a strong curb upon Massachusetts. Any promise made to his subjects Charles regarded as a promise made under duress which he was quite justified in breaking whenever it suited his purpose to do so. Enemies of Massachusetts were busy in England. Schismatics from Salem and revellers from Merry-mount were ready with their tales of woe, and now Gorges and Mason were vigorously pressing their territorial claims."—J. Fiske, *The Beginnings of New Eng.*, ch. 3.—In April, 1634, "the superintendence of the colonies was . . . removed from the privy council to an arbitrary special commission, of which William Laud, archbishop of Canterbury, and the archbishop of York, were the chief. These, with ten of the highest officers of State, were invested with full power to make laws and orders, . . . to appoint judges and magistrates and establish courts for civil and ecclesiastical affairs, . . . to revoke all charters and patents which had been surreptitiously obtained, or which conceded liberties prejudicial to the royal prerogative. Cradock, who had been governor of the corporation in England before the transfer of the charter of Massachusetts, was strictly charged to deliver it up; and he wrote to the governor and council to send it home. Upon receipt of his letter, they resolved 'not to return any answer or excuse at that time.' In September, a copy of the commission to Archbishop Laud and his associates was brought to Boston; and it was at the same time rumored that the colonists were to be compelled by force to accept a new governor, the discipline of the church of England, and the laws of the commissioners. The intelligence awakened 'the magistrates and deputies to discover their minds each to other, and to hasten their fortifications,' towards which, poor as was the colony, £600 were raised. In January, 1635, all the ministers assembled at Boston; and they unanimously declared against the reception of a general governor, saying: 'We ought to defend our lawful possessions, if we are able; if not, to avoid and protract.' In the month before this declaration, it is not strange that Laud and his associates should have esteemed the inhabitants of Massachusetts to be men of refractory humors. . . . Restraints were placed upon emigration; no one above the rank of a serving man might remove to the colony without the special leave of Laud and his associates. . . . Willingly as these acts were enforced by religious bigotry, they were promoted by another cause. A change had come over the character of the great Plymouth council for the colonization of New England," which now schemed and bargained with the English court to surrender its general charter, on the condition that the vast territory which it had already ceded to the Massachusetts Company and others should be reclaimed by the king and granted anew, in severalty, to its members (see NEW ENGLAND: A. D. 1635). "At the Trinity term of the court of king's bench, a quo warranto was brought against the Company of the Massachusetts bay. At the ensuing Michaelmas, several of its members who resided in England made their appearance, and judgment was

pronounced against them individually; the rest of the patentees stood outlawed, but no judgment was entered against them. The unexpected death of Mason, the proprietary of New Hampshire, in December, 1635, removed the chief instigator of these aggressions. In July, 1637, the king, professing 'to redress the mischiefs that had arisen out of the many different humours,' took the government of New England into his own hands, and appointed over it Sir Ferdinando Gorges as governor-general. . . . But the measure was feeble and ineffectual." Gorges "never left England, and was hardly heard of except by petitions to its government." Troubles had thickened about king Charles and his creature Laud until they no longer had time or disposition to bestow more of their thoughts on Massachusetts. A long-suffering nation was making ready to put an end to their malignant activities, and the Puritans of New England and Old England were alike delivered.—G. Bancroft, *Hist. of the U. S. (Author's last rev.)*, pt. 1, ch. 17 (v. 1).

ALSO IN: T. Hutchinson, *Hist. of the Colony of Mass. Bay*, v. 1, pp. 51 and 86-89.

A. D. 1635-1636.—The founding of Boston Latin School and Harvard College. See EDUCATION, MODERN: AMERICA: A. D. 1635; and 1686.

A. D. 1635-1637.—The migration to Connecticut. See CONNECTICUT: A. D. 1634-1637.

A. D. 1636.—The banishment of Roger Williams.—"The intolerance of England had established the New England colonies. The time was at hand when those colonies should in their turn alienate from them their own children, and be the unwilling parents of a fresh state. In 1631, there arrived at Boston a young minister, Roger Williams, 'godly and zealous, having precious gifts.' . . . His theological doctrines seem to have been those generally received among the Puritans, but in questions of church discipline he went far beyond most of his sect. He was a rigid separatist, and carried the doctrine of toleration, or, as perhaps it might be more properly called, state indifference, to its fullest length. Accordingly it was impossible to employ him as a minister at Boston. He went to Salem, which was then without a preacher, and was appointed to the vacant office. But a message from Winthrop and the assistants compelled the church of Salem to retract its choice, and the young enthusiast withdrew to Plymouth," where he remained two years, until August, 1633, when he returned to Salem. "In 1634, he incurred the displeasure of some of his congregation by putting forward the doctrine that no tenure of land could be valid which had not the sanction of the natives. His doctrine was censured by the court at Boston, but on his satisfying the court of his 'loyalty,' the matter passed over. But before long he put forward doctrines, in the opinion of the government, yet more dangerous. He advocated complete separation from the Church of England, and denounced compulsory worship and a compulsory church establishment. Carrying the doctrine of individual liberty to its fullest extent, he asserted that the magistrate was only the agent of the people, and had no right to protect the people against itself; that his power extends only as far as such cases as disturb the public peace. . . . On the 8th of August, 1635, Williams was summoned before the general

court; his opinions were denounced as 'erroneous and very dangerous,' and notice was given to the church at Salem that, unless it could explain the matter to the satisfaction of the court, Williams must be dismissed. In October, Williams was again brought before the court, and after a 'disputation' with Mr. Hooker, which failed to reduce him from any of his errors, he was sentenced to depart out of the jurisdiction of Massachusetts in six weeks. The church of Salem acquiesced in the condemnation of their pastor. Their own experience might have taught the fathers of New England that the best way to strengthen heresy is to oppose it. The natural result followed: the people were 'much taken with the apprehension of Williams' godliness,' and a large congregation, including 'many devout women,' gathered round him. Since they had failed to check the evil, the Massachusetts government resolved to exterminate it and to ship Williams for England. The crew of a pinace was sent to arrest him, but, fortunately for the future of New England, he had escaped. . . . He had set out [January, 1636] for the territory of Narragansett, and there founded the village of Providence."—J. A. Doyle, *The American Colonies*, ch. 2—"His [Roger Williams'] own statement is, it was 'only for the holy truth of Christ Jesus that he was denied the common air to breathe in, and a civil cohabitation upon the same common earth.' But the facts of the case seem to show that it was because his opinions differed from the opinions of those among whom he lived, and were considered by them as dangerous and seditious, tending to the utter destruction of their community, that he was a sacrifice to honest convictions of truth and duty. . . . The sentence of banishment, however, was not passed without reluctance. Governor Winthrop remained his friend to the day of his death, and even proposed, in view of his services in the Pequot war, that his sentence should be revoked. Governor Haynes, of Connecticut, who pronounced his sentence, afterwards regretted it. Governor Winslow, of Plymouth, who had no hand in his expulsion, 'put a piece of gold in the hands of his wife,' to relieve his necessities, and though Mr. Cotton hardly clears himself from the charge of having procured his sentence, there was no private feud between them. Cotton Mather concedes that 'many judicious persons judged him to have had the root of the matter in him.' Later writers declare him, 'from the whole course and tenor of his life and conduct, to have been one of the most disinterested men that ever lived, a most pious and heavenly-minded soul.' And the magnanimous exile himself says, 'I did ever from my soul honor and love them, even when their judgment led them to afflict me.'"—J. S. Barry, *Hist. of Mass.*, v. 1, ch. 9.

ALSO IN: J. D. Knowles, *Memoir of Roger Williams*, ch. 3-5.—E. B. Underhill, *introd. to Williams' 'Bloudy Tenent of Persecution'* (Hansard Knollys Soc.).—G. E. Ellis, *The Puritan Age and Rule*, ch. 8.—See, also, RHODE ISLAND: A. D. 1636.

A. D. 1636-1638.—Mrs. Anne Hutchinson and the Antinomian troubles.—"The agitation and strife connected with the Antinomian controversy, opened by Mrs. Ann Hutchinson, came dangerously near to bringing the fortunes of the young Massachusetts colony to a most disastrous

ruin. . . . The peril overhung at a time when the proprietary colonists had the most reasonable and fearful forebodings of the loss of their charter by the interference of a Privy Council Commission. . . . Ominously enough, too, Mrs. Hutchinson arrived here, Sept. 18, 1634, in the vessel which brought the copy of that commission. Winthrop describes her as a woman of a 'ready wit and bold spirit.' Strongly gifted herself, she had a gentle and weak husband, who was guided by her. She had at home enjoyed no ministrations so much as those of Cotton, and her brother-in-law, Mr. Wheelwright. She came here to put herself again under the preaching of the former. . . . She had been here for two years, known as a ready, kindly, and most serviceable woman, especially to her own sex in their straits and sicknesses. But she anticipated the introduction of 'the woman question' among the colonists in a more troublesome form than it has yet assumed for us. Joined by her brother-in-law, who was also admitted to the church, after those two quiet years she soon made her influence felt for trouble, as he did likewise. . . . The male members of the Boston Church had a weekly meeting, in which they discussed the ministrations of Cotton and Wilson. Mrs. Hutchinson organized and presided over one, held soon twice in a week, for her own sex, attended by nearly a hundred of the principal women on the peninsula and in the neighborhood. It was easy to foresee what would come of it, through one so able and earnest as herself, even if she had no novel or disjointed or disproportioned doctrine to inculcate; which, however, it proved that she had. Antinomian means a denying, or, at least, a weakening, of the obligation to observe the moral law, and to comply with the external duties; to do the works associated with the idea of internal, spiritual righteousness. It was a false or disproportioned construction of St. Paul's great doctrine of justification by faith, without the works of the law. . . . Mrs. Hutchinson was understood to teach, that one who was graciously justified by a spiritual assurance, need not be greatly concerned for outward sanctification by works. She judged and approved, or censured and discredited, the preachers whom she heard, according as they favored or repudiated that view. Her admirers accepted her opinions. . . . Word soon went forth that Mrs. Hutchinson had pronounced in her meetings, that Mr. Cotton and her brother-in-law Wheelwright, alone of all the ministers in the colony, were under 'a covenant of grace,' the rest being 'legalists,' or under 'a covenant of works.' These reports, which soon became more than opinions, were blazing brands that it would be impossible to keep from reaching inflammable material. . . . As the contention extended it involved all the principal persons of the colony. Cotton and all but five members of the Boston Church—though one of these five was Winthrop, and another was Wilson—proved to be sympathizers with Mrs. Hutchinson; while the ministers and leading people outside in the other hamlets were strongly opposed to her. She had a partisan, moreover, of transcending influence in the young Governor, Sir Henry Vane," who had come over from England the year before, and who had been chosen at the next election for Governor, with Winthrop as deputy. "Though pure and devout, and ardent in zeal, he had not

then the practical wisdom for which Milton afterwards praised him in his noble sonnet:—'Vane, young in years, but in sage counsels old.' . . . With his strong support, and that of two other prominent magistrates, and of so overwhelming a majority of the Boston Church, Mrs. Hutchinson naturally felt emboldened." But in the end her Church and party were overcome by the ministers and their supporters in the other parts of the colony; she was excommunicated and banished (November, 1637, and March, 1638), going forth to perish six years later at the hands of the Indians, while living on the shore of Long Island Sound, at a place now known as Pelham Neck, near New Rochelle. "As the summing up of the strife, 76 persons were disarmed; two were disfranchised and fined; 2 more were fined; 8 more were disfranchised; 3 were banished; and 11 who had asked permission to remove had leave, in the form of a limitation of time within which they must do it. The more estimable and considerable of them apologized and were received back."—G. E. Ellis, *Linnell Inst. Lects. on the Early Hist. of Mass.*, pp. 95-100

ALSO IN: B. Adams, *The Emancipation of Mass.*, ch. 2.—*Ecclesiastical Hist. of N. Eng.* (*Mass. Hist. Soc. Coll.*, series 1, v. 9).—G. E. Ellis, *Life of Anne Hutchinson* (*Library of Am. Biog.*, new series, v. 6).—J. Anderson, *Memorable Writings of Puritan Times*, v. 1, pp. 185-220.

A. D. 1637.—The Pequot War. See NEW ENGLAND: A. D. 1637.

A. D. 1637.—The first Synod of the Churches and its dealings with Heresy.—The election of Sir Harry Vane to be Governor of the colony, in place of John Winthrop, "took place in the open air upon what is now Cambridge Common on the 27th day of May [1637]. Four months later it was followed by the gathering of the first Synod of Massachusetts churches; which again, meeting here in Cambridge, doubtless held its sessions in the original meeting-house standing on what is now called Mount Auburn Street. The Synod sat through twenty-four days, during which it busied itself unearthing heterodox opinions and making the situation uncomfortable for those suspected of heresy, until it had spread upon its record no less than eighty-two such 'opinions, some blasphemous, others erroneous, and all unsafe,' besides 'nine unwholesome expressions,' all alleged to be rife in the infant community. Having performed this feat, it broke up amid general congratulations 'that matters had been carried on so peaceably, and concluded so comfortably in all love.' . . . As the twig is bent, the tree inclines. The Massachusetts twig was here and then bent; and, as it was bent, it during hard upon two centuries inclined. The question of Religious Toleration was, so far as Massachusetts could decide it, decided in 1637 in the negative. . . . The turning point in the history of early Massachusetts was the Cambridge Synod of September, 1637, . . . which succeeded in spreading on its record, as then prevailing in the infant settlement, eighty-two 'opinions, some blasphemous, others erroneous and all unsafe,' besides 'nine unwholesome expressions,' the whole mighty mass of which was then incontinently dismissed, in the language of one of the leading divines who figured in that Assembly, 'to the devil of hell, from whence they came.' The mere enumeration of this long list of heresies as then somewhere prevailing is strong evidence of

intellectual activity in early Massachusetts,—an activity which found ready expression through such men as Roger Williams, John Cotton, John Wheelwright and Sir Henry Vane, to say nothing of Mrs. Hutchinson, while the receptive condition of the mental soil is likewise seen in the hold the new opinions took. It was plainly a period of intellectual quickening,—a dawn of promise. Of this there can no doubt exist. It was freely acknowledged at the time; it has been stated as one of the conditions of that period by all writers on it since. The body of those who listened to him stood by Roger Williams; and the magistrates drove him away for that reason. Anne Hutchinson so held the ear of the whole Boston community that she had 'some of all sorts and quality, in all places to defend and patronize' her opinions; 'some of the magistrates, some gentlemen, some scholars and men of learning, some Burgesses of our General Court, some of our captains and soldiers, some chief men in towns, and some men eminent for religion, parts and wit.' These words of a leader of the clerical faction,—one of those most active in the work of repression,—describe to the life an active-minded, intelligent community quick to receive and ready to assimilate that which is new. Then came the Synod. It was a premonition. It was as if the fresh new sap,—the young budding leaves,—the possible, incipient flowers, had felt the chill of an approaching glacier. And that was exactly what it was;—a theological glacier then slowly settled down upon Massachusetts,—a glacier lasting through a period of nearly one hundred and fifty years."—C. F. Adams, *Massachusetts: Its Historians and its History*, pp. 10-59.

A. D. 1638-1641.—Introduction of Slavery. See SLAVERY, NEGRO: A. D. 1638-1781.

A. D. 1639.—The first printing press set up. See PRINTING: A. D. 1585-1709.

A. D. 1640-1644.—The end of the Puritan exodus.—Numerical growth and political development. See NEW ENGLAND: A. D. 1640-1644.

A. D. 1641.—Jurisdiction extended over New Hampshire. See NEW HAMPSHIRE: A. D. 1641-1679.

A. D. 1642.—The first Public School law. See EDUCATION, MODERN: AMERICA: A. D. 1642-1782.

A. D. 1643.—The Confederation of the Colonies.—The growth of Plymouth. See NEW ENGLAND: A. D. 1643.

A. D. 1643-1654.—Interest in Acadia and temporary conquest of the Province. See NOVA SCOTIA: A. D. 1621-1688.

A. D. 1646-1651.—The Presbyterian Cabal and the Cambridge Platform.—"There had now come to be many persons in Massachusetts who disapproved of the provision which restricted the suffrage to members of the Independent or Congregational churches of New England, and in 1646 the views of these people were presented in a petition to the General Court. . . . The leading signers of this menacing petition were William Vassall, Samuel Maverick, and Dr. Robert Child. . . . Their request would seem at first sight reasonable enough. At a superficial glance it seems conceived in a modern spirit of liberalism. In reality it was nothing of the sort. In England it was just the critical moment of the struggle between Presbyterians and Independents which had come in to compli-

cate the issues of the great civil war. Vassall, Child, and Maverick seem to have been the leading spirits in a cabal for the establishment of Presbyterianism in New England, and in their petition they simply took advantage of the discontent of the disfranchised citizens in Massachusetts in order to put in an entering wedge. This was thoroughly understood by the legislature of Massachusetts, and accordingly the petition was dismissed and the petitioners were roundly fined. Just as Child was about to start for England with his grievances, the magistrates overhauled his papers and discovered a petition to the parliamentary Board of Commissioners, suggesting that Presbyterianism should be established in New England, and that a viceroy or governor-general should be appointed to rule there. To the men of Massachusetts this last suggestion was a crowning horror. It seemed scarcely less than treason. The signers of this petition were the same who had signed the petition to the General Court. They were now fined still more heavily and imprisoned for six months. By and by they found their way, one after another, to London, while the colonists sent Edward Winslow, of Plymouth, as an advocate to thwart their schemes. . . . The cabal accomplished nothing because of the decisive defeat of Presbyterianism in England. 'Pride's Purge' settled all that. The petition of Vassall and his friends was the occasion for the meeting of a synod of churches at Cambridge, in order to complete the organization of Congregationalism. In 1648 the work of the synod was embodied in the famous Cambridge Platform, which adopted the Westminster Confession as its creed, carefully defined the powers of the clergy, and declared it to be the duty of magistrates to suppress heresy. In 1649 the General Court laid this platform before the congregations; in 1651 it was adopted; and this event may be regarded as completing the theocratic organization of the Puritan commonwealth in Massachusetts. It was immediately preceded and followed by the deaths of the two foremost men in that commonwealth. John Winthrop died in 1649 and John Cotton in 1652."—J. Fiske, *The Beginnings of New Eng.*, ch. 4.

ALSO IN: C. Mather, *Magnalia Christi Americana*, bk. 5, pt. 2.—B. Adams, *The Emancipation of Mass.*, ch. 3.

A. D. 1649-1651.—Under Cromwell and the Commonwealth of England.—"Massachusetts had, from the outset, sympathized with Parliament in its contest with the king, and had blended her fortunes with the fortunes of the reformers. She had expressed her willingness to 'rise and fall with them,' and 'sent over useful men, others going voluntarily, to their aid, who were of good use, and did acceptable service to the army.' Her loyalty, therefore, procured for her the protection of Parliament. Yet the execution of Charles, which royalists have ever regarded with the utmost abhorrence, was not openly approved here. 'I find,' says Hutchinson, 'scarce any marks of approbation of the tragical scene of which this year they received intelligence.' The few allusions we have discovered are none of them couched in terms of exultation. Virginia pursued a different course, and openly resisted Parliament, refused to submit to its decrees, and adhered to the cause of royalty. . . . Yet the legislation of the commonwealth was not wholly favorable even to Massa-

chusetts. The proclamation relative to Virginia asserted, in general terms, the power of appointing governors and commissioners to be placed in all the English colonies, without exception; and by Mr. Winslow, their agent in England, they were informed that it was the pleasure of Parliament the patent of Massachusetts should be returned, and a new one taken out, under which courts were to be held and warrants issued. With this request the people were indisposed to comply; and, too wary to hazard the liberties so dearly purchased, a petition was drawn up, pleading the cause of the colony with great force, setting forth its allegiance, and expressing the hope that, under the new government, things might not go worse with them than under that of the king, and that their charter might not be recalled, as they desired no better. This remonstrance was successful; the measure was dropped, and the charter of Charles continued in force. Parliament was not 'foiled' by the colony. Its request was deemed reasonable; and there was no disposition to invade forcibly its liberties. We have evidence of this in the course of Cromwell. After his success in the 'Emerald Isle,' conceiving the project of introducing Puritanism into Ireland, an invitation was extended to the people of Massachusetts to remove thither and settle. But they were too strongly attached to the land of their adoption, and to its government, 'the happiest and wisest this day in the world,' readily to desert it. Hence the politic proposal of the lord protector was respectfully declined."—J. S. Barry, *Hist. of Mass.*, v. 1, ch. 12.

ALSO IN: J. A. Doyle, *The English in Am.: Puritan Colonies*, v. 1, ch. 9.

A. D. 1651-1660.—The absorption of Maine. See MAINE: A. D. 1643-1677.

A. D. 1656-1661.—The persecution of the Quakers.—"In July, 1656, Mary Fisher and Ann Austin came to Boston from Barbadoes; and shortly after, nine others, men and women, arrived in the ship *Speedwell* from London. It was at once known, for they did not wish to conceal it, that they were 'Friends,' vulgarly called 'Quakers'; and the Magistrates at once took them in hand, determined that no people holding (as they considered them) such damnable opinions, should come into the Colony. A great crowd collected to hear them questioned, and Boston was stirred up by a few illiterate enthusiasts. They stood up before the Court with their hats on, apparently without fear, and had no hesitation in calling governor Endicott plain 'John.' . . . The replies which these men and women made were direct and bold, and were considered rude and contemptuous. . . . They . . . were committed to prison for their 'Rudeness and Insolence'; there being no law then under which they could be punished for being Quakers." Before the year closed, this defect of law was remedied by severe enactments, "laying a penalty of £100 for bringing any Quaker into the Colony: forty shillings for entertaining them for an hour; Quaker men who came against these prohibitions were, upon first conviction, to lose one ear, upon the second, the other ear; and women were to be whipped. Upon the third conviction, their tongues were to be bored with a hot iron. But these things seemed useless, for the Quakers, knowing their fate, swarmed into Massachusetts; and the Magistrates were fast

getting more business than they could attend to. It was then determined to try greater severity, and in October, 1658, a law was passed in Massachusetts (resisted by the Deputies, urged by the Magistrates), punishing Quakers, who had been banished, with death." The first to challenge the dread penalty were a woman, Mary Dyer, and two men, William Robinson and Marmaduke Stevenson, who, after being banished (September, 1659), came defiantly back the next month. "Governor Endicott pronounced sentence of death against them. . . . On the 27th of October, in the afternoon, a guard of 200 men, attended with a drummer, conducted them to the gallows." Stevenson and Robinson were hanged; but Mary Dyer was reprieved. "Her mind was made up for death, and her reprieve brought her no joy. She was taken away by her son. . . . Mary Dyer was a 'comely and valiant woman,' and in the next Spring she returned. What now was to be done? The law said she must be hung, and Endicott again pronounced sentence, and she was led out to die a felon's death. Some scoffed and jeered her, but the most pitied; she died bravely, fearing nothing. . . . There seemed no end; for Quaker after Quaker came; they were tried, they were whipped, and the prison was full. . . . William Ledra [banished in 1657] came back (September, 1660), and was subject to death. They offered him his life, if he would go away and promise not to return; he said: 'I came here to bear my testimony, and to tell the truth of the Lord, in the ears of this people. I refuse to go.' So he was hanged in the succeeding March (14th). Wenlock Christopherson, or Christison, came, and was tried and condemned to die. . . . The death of Ledra, and the return of Wenlock Christison, brought confusion among the Magistrates, and some said 'Where will this end?' and declared it was time to stop. Governor Endicott found it difficult to get a Court to agree to sentence Christison to death; but he halted not, and pronounced the sentence. . . . But a few days afterward the jailor opened the prison doors, and Wenlock (with 27 others) was set at liberty, much to his and their surprise." The friends of the Quakers in England had prevailed upon King Charles II., then lately restored, "to order the persecutions to cease in New England (Sept. 1661). Samuel Shattock, a banished Quaker, was sent from England by Charles, with a letter to Governor Endicott [the subject of Whittier's poem, 'The King's Missive'], commanding that no more Quakers should be hanged or imprisoned in New England, but should be sent to England for trial. This ended the persecutions; for, on the 9th of December, 1661, the Court ordered all Quakers to be set at liberty."—C. W. Elliott, *The New England Hist.*, v. 1, ch. 36.—"Some of our writers, alike in prose and in poetry, have assumed, and have written on the assumption, that the deliverance of the Quakers was effected by the interposition in their behalf of King Charles II. . . . The royal letter . . . had . . . been substantially anticipated as to its principal demand by the action of the Court [in Massachusetts]. The general jail delivery of 81 Quakers, including the three under the death sentence who had voluntarily agreed to go off, was ordered by the Court in October, 1660. The King's letter was dated at Whitehall a year afterward. Let us claim whatever of relief we can find in

reminding ourselves that it was the stern opposition and protest of the majority of the people of the Puritan Colony, and not the King's command, that had opened the gates of mercy."—G. E. Ellis, *The Puritan Age and Rule*, pp. 477-479.—While the Quakers first arrested at Boston were lying in jail, "the Federal Commissioners, then in session at Plymouth, recommended that laws be forthwith enacted to keep these dreaded heretics out of the land. Next year they stooped so far as to seek the aid of Rhode Island, the colony which they had refused to admit into their confederacy. . . . Roger Williams was then president of Rhode Island, and in full accord with his noble spirit was the reply of the assembly. 'We have no law amongst us whereby to punish any for only declaring by words their minds and understandings concerning the things and ways of God as to salvation and our eternal condition.' As for these Quakers, we find that where they are 'most of all suffered to declare themselves freely and only opposed by arguments in discourse, there they least of all desire to come.' Any breach of the civil law shall be punished, but the 'freedom of different consciences shall be respected.' This reply enraged the confederated colonies, and Massachusetts, as the strongest and most overbearing, threatened to cut off the trade of Rhode Island, which forthwith appealed to Cromwell for protection. . . . In thus protecting the Quakers, Williams never for a moment concealed his antipathy to their doctrines. . . . The four confederated colonies all proceeded to pass laws banishing Quakers. . . . Those of Connecticut . . . were the mildest."—J. Fiske, *The Beginnings of New Eng.*, ch. 4.

ALSO IN: B. Adams, *The Emancipation of Mass.*, ch. 5.—R. P. Hallowell, *The Quaker Invasion of Mass.*

A. D. 1657-1662.—The Halfway Covenant. See BOSTON: A. D. 1657-1669.

A. D. 1660-1665.—Under the Restored Monarchy.—The first collision with the crown.—"In May, 1660, Charles II. mounted the throne of his ancestors. . . . In December of this year, intelligence of the accession of a new king had reached Massachusetts; the General Court convened and prepared addresses to his majesty. . . . In the following May a reply, signed by Mr. Secretary Morrice, together with a mandate for the arrest of Goffe and Whalley, the regicides who had escaped to Massachusetts, was received in Boston. The king's response contained a general expression of good will, which, however, did not quiet the apprehensions of the colonists. The air was filled with rumors, and something seemed to forebode an early collision with the crown. At a special session of the court, held in June, 'a declaration of natural and chartered rights' was approved and published. In this document the people affirmed their right 'to choose their own governor, deputy governor, and representatives; to admit freemen on terms to be prescribed at their own pleasure; to set up all sorts of officers, superior and inferior, and point out their power and places; to exercise, by their annually elected magistrates and deputies, all power and authority, legislative, executive, and judicial; to defend themselves by force of arms against every aggression; and to reject, as an infringement of their rights, any parliamentary or royal imposition, prejudicial to the country, and contrary to any just act of colonial

legislation.' More than a year elapsed from the restoration of Charles II. to his public recognition at Boston. . . . Even the drinking of his health was forbidden, and the event was celebrated only amid the coldest formalities. Meanwhile the colonists not only declared, but openly assumed, their rights; and in consequence complaints were almost daily instituted by those who were hostile to the government. Political opinion was diversified; and while 'a majority were for sustaining, with the charter, an independent government in undiminished force, a minority were willing to make some concessions.' In the midst of the discussions, John Norton, 'a friend to moderate counsels,' and Simon Bradstreet were induced to go to England as agents of the colony. Having been instructed to convince the king of the loyalty of the people of Massachusetts, and to 'engage to nothing prejudicial to their present standing according to their patent, and to endeavor the establishment of the rights and privileges then enjoyed,' the commissioners sailed from Boston on the 10th of February, 1662. In England they were courteously received by king Charles, and from him obtained, in a letter dated June 28, a confirmation of their charter, and an amnesty for all past offences. At the same time the king rebuked them for the irregularities which had been complained of in the government; directed 'a repeal of all laws derogatory to his authority; the taking of the oath of allegiance; the administration of justice in his name; a concession of the elective franchise to all freeholders of competent estate; and as 'the principle of the charter was the freedom of the liberty of conscience,' the allowance of that freedom to those who desired to use 'the booke of common prayer, and perform their devotion in the manner established in England.' These requisitions of the king proved anything but acceptable to the people of Massachusetts. With them the question of obedience became a question of freedom, and gave rise to the parties which continued to divide the colony until the establishment of actual independence. It was not thought best to comply immediately with his majesty's demands; on the other hand, no refusal to do so was promulgated." Presently a rumor reached America "that royal commissioners were to be appointed to regulate the affairs of New England. Precautionary measures were now taken. The patent and a duplicate of the same were delivered to a committee of four, with instructions to hold them in safe keeping. Captain Davenport, at Castle Fort, was ordered to give early announcement of the arrival of his majesty's ships. Officers and soldiers were forbidden to land from ships, except in small parties. . . . On the 23d of July, 1664, 'about five or six of the clock at night,' the 'Guinea,' followed by three other ships of the line, arrived in Boston harbor. They were well manned and equipped for the reduction of the Dutch settlements on the Hudson, and brought commissioners hostile to colonial freedom, and who were charged by the king to determine 'all complaints and appeals in all causes and matters, as well military as criminal and civil,' and to 'proceed in all things for the providing for and settling the peace and security of the country, according to their good and sound discretions.' Colonel Richard Nichols and Colonel George Cartwright were the chief members of the commission. At

the earliest possible moment they produced their legal warrant, the king's letter of April 23, and requested the assistance of the colonies in the reduction of the Dutch. Shortly afterwards the fleet set out for New Netherlands. On the 8d of August the General Court convened, and the state of affairs was discussed." As the result of the discussion it was agreed that a force of 200 men should be raised to serve against the Dutch, and that the old law of citizenship should be so far modified as to provide "that all English subjects, being freeholders, and of a competent estate, and certified by the ministers of the place to be orthodox in faith, and not vicious in their lives, should be made freemen, although not members of the church." Before the session closed, Massachusetts published an order forbidding the making of complaints to the commissioners," and adopted a spirited address to the king. When, in February, 1665, three of the commissioners returned to Boston, they soon found that they were not to be permitted to take any proceedings which could call in question "the privilege of government within themselves" which the colony claimed. Attempting in May to hold a court for the hearing of charges against a Boston merchant, they were interrupted by a herald from the governor who sounded his trumpet and forbade, in the name of the king, any abetting of their proceedings. On this they wrathfully departed for the north, after sending reports of the contumacy of Massachusetts to the king. The latter now summoned governor Bellingham to England, but the summons was not obeyed. "We have already furnished our views in writing [said the General Court], so that the ablest persons among us could not declare our case more fully." . . . The defiance of Massachusetts was followed by no immediate danger. For a season the contest with the crown ceased. The king himself was too much engaged with his women to bestow his attention upon matters of state; and thus, while England was lamenting the want of a good government, the colonies, true to themselves, their country, and their God, flourished in purity and peace."—G. L. Austin, *Hist. of Mass.*, ch. 4.—*Records of the Gov. and Co. of Mass. Bay*, v. 4, pt. 2.—See, also, NEW YORK: A. D. 1664.

A. D. 1671-1686.—The struggle for the charter and its overthrow.—"Although the colonists were alarmed at their own success, there was nothing to fear. At no time before or since could England have been so safely defied. . . . The discord between the crown and Parliament paralyzed the nation, and the wastefulness of Charles kept him always poor. By the treaty of Dover in 1670 he became a pensioner of Louis XIV. The Cabal followed, probably the worst ministry England ever saw; and in 1672, at Clifford's suggestion, the exchequer was closed and the debt repudiated to provide funds for the second Dutch war. In March fighting began, and the tremendous battles with De Ruyter kept the navy in the Channel. At length, in 1678, the Cabal fell, and Danby became prime minister. Although during these years of disaster and disgrace Massachusetts was not molested by Great Britain, they were not all years during which the theocracy could tranquilly enjoy its victory. . . . With the rise of Danby a more regular administration opened, and, as usual, the attention of the government was fixed upon Massachusetts

by the clamors of those who demanded redress for injuries alleged to have been received at her hands. In 1674 the heirs of Mason and Gorges, in despair at the reoccupation of Maine, proposed to surrender their claim to the king, reserving one third of the product of the customs for themselves. The London merchants also had become restive under the systematic violation of the Navigation Acts. The breach in the revenue laws had, indeed, been long a subject of complaint, and the commissioners had received instructions relating thereto; but it was not till this year that these questions became serious. . . . New England was fast getting its share of the carrying trade. London merchants already began to feel the competition of its cheap and untaxed ships, and manufacturers to complain that they were undersold in the American market, by goods brought direct from the Continental ports. A petition, therefore, was presented to the king, to carry the law into effect. . . . The famous Edward Randolph now appears. The government was still too deeply embarrassed to act with energy. A temporizing policy was therefore adopted; and as the experiment of a commission had failed, Randolph was chosen as a messenger to carry the petitions and opinions to Massachusetts; together with a letter from the king, directing that agents should be sent in answer thereto. After delivering them, he was ordered to devote himself to preparing a report upon the country. He reached Boston June 10, 1676. Although it was a time of terrible suffering from the ravages of the Indian war, the temper of the magistrates was harsher than ever. The repulse of the commissioners had convinced them that Charles was not only lazy and ignorant, but too poor to use force; and they also believed him to be so embroiled with Parliament as to make his overthrow probable. Filled with such feelings, their reception of Randolph was almost brutal. John Leverett was governor, who seems to have taken pains to mark his contempt in every way in his power. Randolph was an able, but an unscrupulous man, and probably it would not have been difficult to have secured his good-will. Far however from bribing, or even flattering him, they so treated him as to make him the bitterest enemy the Puritan Commonwealth ever knew. . . . The legislature met in August, 1676, and a decision had to be made concerning agents. On the whole, the clergy concluded it would be wiser to obey the crown, 'provided they be, with utmost care & caution, qualified as to their instructions.' Accordingly, after a short adjournment, the General Court chose William Stoughton and Peter Bulkely; and having strictly limited their power to a settlement of the territorial controversy, they sent them on their mission. . . . The controversy concerning the boundary was referred to the two chief justices, who promptly decided against the Company; and the easy acquiescence of the General Court must raise a doubt as to their faith in the soundness of their claims. And now again the fatality which seemed to pursue the theocracy in all its dealings with England led it to give fresh provocation to the king by secretly buying the title of Gorges for 1,250 pounds. Charles had intended to settle Maine on the Duke of Monmouth. It was a worthless possession, whose revenue never paid for its defence; yet so stubborn was the colony that it made haste to anticipate the crown

and thus became 'Lord Proprietary' of a burdensome province at the cost of a slight which was never forgiven. Almost immediately the Privy Council had begun to open other matters, such as coining and illicit trade; and the attorney-general drew up a list of statutes which, in his opinion, were contrary to the laws of England. . . . In the spring the law officers gave an opinion that the misdemeanors alleged against Massachusetts were sufficient to avoid her patent; and the Privy Council, in view of the encroachments and injuries which she had continually practised on her neighbors, and her contempt of his majesty's commands, advised that a 'quo warranto' should be brought against the charter. Randolph was appointed collector at Boston. Even Leverett now saw that some concessions must be made, and the General Court ordered the oath of allegiance to be taken; nothing but perversity seems to have caused the long delay. The royal arms were also carved in the courthouse; and this was all, for the clergy were determined upon those matters touching their authority. . . . Nearly half a century had elapsed since the emigration, and with the growth of wealth and population changes had come. In March, John Leverett, who had long been the head of the high-church party, died, and the election of Simon Bradstreet as his successor was a triumph for the opposition. Great as the clerical influence still was, it had lost much of its old despotic power, and the congregations were no longer united in support of the policy of their pastors. . . . Boston and the larger towns favored concession, while the country was the ministers' stronghold. The result of this divergence of opinion was that the moderate party, to which Bradstreet and Dudley belonged, predominated in the Board of Assistants, while the deputies remained immovable. The branches of the legislature thus became opposed; no course of action could be agreed on, and the theocracy drifted to its destruction. . . . Meanwhile Randolph had renewed his attack. He declared that in spite of promises and excuses the revenue laws were not enforced; that his men were beaten, and that he hourly expected to be thrown into prison; whereas in other colonies, he asserted, he was treated with great respect. There can be no doubt ingenuity was used to devise means of annoyance; and certainly the life he was made to lead was hard. In March he sailed for home, and while in London he made a series of reports to the government which seem to have produced the conviction that the moment for action had come. In December he returned, commissioned as deputy-surveyor and auditor general for all New England, except New Hampshire. . . . Hitherto the clerical party had procrastinated, buoyed up by the hope that in the fierce struggle with the commons Charles might be overthrown; but this dream ended with the dissolution of the Oxford Parliament, and further inaction became impossible. Joseph Dudley and John Richards were chosen agents, and provided with instructions bearing the peculiar tinge of ecclesiastical statesmanship. . . . The agents were urged to do what was possible to avert, or at least delay, the stroke; but they were forbidden to consent to appeals, or to alterations in the qualifications required for the admission of freemen. They had previously been directed to pacify the king by a present of 2,000 pounds; and this ill-judged

attempt at bribery had covered them with ridicule. Further negotiation would have been futile. Proceedings were begun at once, and Randolph was sent to Boston to serve the writ of 'quo warranto'; he was also charged with a royal declaration promising that, even then, were submission made, the charter should be restored with only such changes as the public welfare demanded. Dudley, who was a man of much political sagacity, had returned and strongly urged moderation. The magistrates were not without the instincts of statesmanship: they saw that a breach with England must destroy all safeguards of the common freedom, and they voted an address to the crown accepting the proffered terms. But the clergy strove against them: the privileges of their order were at stake; they felt that the loss of their importance would be 'destructive to the interest of religion and of Christ's kingdom in the colony,' and they roused their congregations to resist. The deputies did not represent the people, but the church. . . . The influence which had moulded their minds and guided their actions controlled them still, and they rejected the address. . . . All that could be resolved on was to retain Robert Humphrys of the Middle Temple to interpose such delays as the law permitted; but no attempt was made at defence upon the merits of their cause, probably because all knew well that no such defence was possible. Meanwhile, for technical reasons, the 'quo warranto' had been abandoned, and a writ of 'scire facias' had been issued out of chancery. On June 18, 1684, the lord keeper ordered the defendant to appear and plead on the first day of the next Michaelmas Term. The time allowed was too short for an answer from America, and judgment was entered by default. . . . So perished the Puritan Commonwealth. The child of the Reformation, its life sprang from the assertion of the freedom of the mind; but this great and noble principle is fatal to the temporal power of a priesthood, and during the supremacy of the clergy the government was doomed to be both persecuting and repressive. Under no circumstance could the theocracy have endured: it must have fallen by revolt from within if not by attack from without." -- Brooks Adams, *The Emancipation of Massachusetts*, ch. 6. -- "December 19, 1686, Sir Edmund Andros arrived at Nantasket, in the Kingfisher, a 50 gun ship, with commissions from King James for the government of New England." -- T. Hutchinson, *Hist. of the Colony of Mass. Bay*, v. 1, ch. 3.

ALSO IN: G. E. Ellis, *Puritan Age and Rule in Mass.*, ch. 13 -- C. Deane, *The Struggle to Maintain the Charter of Charles I.* (*Memorial Hist. of Boston*, v. 1, pp. 329-382). -- *Records of the Gov. and Co. of Mass. Bay*, v. 5. -- See, also, NEW ENGLAND: A. D. 1686.

A. D. 1674-1678. -- King Philip's War. See NEW ENGLAND: A. D. 1674-1675; 1675; 1676-1678.

A. D. 1679. -- The severance of New Hampshire. See NEW HAMPSHIRE: A. D. 1641-1679.

A. D. 1686-1689. -- The tyranny of Andros and its downfall. -- "With the charter were swept away representative government, and every right and every political institution reared during half a century of conflict. The rule of Andros was on the model dear to the heart of his royal master -- a harsh despotism, but neither

strong nor wise; it was wretched misgovernment, and stupid, blundering oppression. And this arbitrary and miserable system Andros undertook to force upon a people of English race, who had been independent and self-governing for fifty years. He laid taxes at his own pleasure, and not even according to previous rates, as he had promised; he denied the Habeas Corpus to John Wise, the intrepid minister of Ipswich, arrested for preaching against taxation without representation, and he awakened a like resistance in all directions. He instituted fees, was believed to pack juries, and made Randolph licenser of the press. Worst of all, he struck at property, demanded the examination of the old titles, declared them worthless, extorted quit-rents for renewal, and issued writs of intrusion against those who resisted; while, not content with attacking political liberty and the rights of property, he excited religious animosity by forbidding civil marriages, seizing the old South church for the Episcopal service, and introducing swearing by the Book in courts of justice. He left nothing undone to enrage the people and prepare for revolution; and when he returned from unsuccessful Indian warfare in the east, the storm was ready to burst. News came of the landing of the Prince of Orange. Andros arrested the bearer of the tidings, and issued a proclamation against the Prince; but the act was vain. Without apparent concert or preparation Boston rose in arms, the signal-fire blazed on Beacon Hill, and the country people poured in, hot for revenge. Some of the old magistrates met at the town-house, and read a 'declaration of the gentlemen, merchants, and inhabitants,' setting forth the misdeeds of Andros, the illegality of the Dudley government by commission, and the wrongful suppression of the charter. Andros and Dudley were arrested and thrown into prison, together with the captain of the *Rose* frigate, which lay helpless beneath the guns of the fort, and a provisional government was established, with Bradstreet at its head. William and Mary were proclaimed, the revolution was complete, and Andros soon went back a prisoner to England."—H. C. Lodge, *Short Hist. of the English Colonies*, ch. 18.

ALSO IN: J. G. Palfrey, *Hist. of New Eng.*, bk. 8, ch. 13-14 (v. 3).—*The Andros Tracts*; ed. by W. H. Whitmore (Prince Soc., 1868).

A. D. 1689-1692.—The procuring of the new Charter.—The Colonial Republic transformed into a Royal Province.—The absorption of Plymouth.—A little more than a month from the overthrow of Andros a ship from England arrived at Boston, with news of the proclamation of William and Mary. This was joyful intelligence to the body of the people. The magistrates were at once relieved from their fears, for the revolution in the old world justified that in the new. Three days later the proclamation was published with unusual ceremony. . . . A week later the representatives of the several towns, upon a new choice, met at Boston, and proposals were made that charges should be forthwith drawn up against Andros, or that all the prisoners but Andros should be liberated on bail; but both propositions were rejected. The representatives likewise urged the unconditional resumption of the charter, declaring that they could not act in any thing until this was conceded. Many opposed the motion; but it was

finally adopted; and it was resolved that all the laws in force May 12, 1686, should be continued until further orders. Yet the magistrates, conscious of the insecurity of the position they occupied, used prudently the powers intrusted to them." Meantime, Increase Mather, who had gone to England before the Revolution took place as agent for the colony, had procured an audience with the new king, William III., and received from him an assurance that he would remove Andros from the government of New England and call him to an account for his administration. "Anxious for the restoration of the old charter and its privileges, under which the colony had prospered so well, the agent applied himself diligently to that object, advising with the wisest statesmen for its accomplishment. It was the concurrent judgment of all that the best course would be to obtain first a reversion of the judgment against the charter by an act of Parliament, and then apply to the king for such additional privileges as were necessary. Accordingly, in the House of Commons, where the whole subject of seizing charters in the reign of Charles II. was up for discussion, the charters of New England were inserted with the rest; and, though enemies opposed the measure, it was voted that their abrogation was a grievance, and that they should be forthwith restored." But before the bill having this most satisfactory effect had been acted on in the House of Lords, the Convention Parliament was prorogued, then dissolved, and the next parliament proved to be less friendly. An order was obtained, however, from the king, continuing the government of the colony under the old charter until a new one was settled, and requiring Andros and his fellow prisoners to be sent to England for trial. On the trial, much court influence seemed to go in favor of Sir Edmund; the proceedings against him were summarily quashed, and he was discharged. Soon afterwards he was made governor of Virginia, while Dudley received appointment to the office of chief justice at New York. Contending against the intrigues of the Andros party, and many other adverse influences, the agents of Massachusetts were reluctantly forced at last to relinquish all hopes of the restoration of the old charter, and "application was made for a new grant, which should confirm the privileges of the old instrument, and such in addition as the experience of the people had taught them would be of benefit. . . . The king was prevailed upon to refer the affairs of New England to the two lords chief justices and the attorney and solicitor-general, all of whom were supposed to be friendly to the applicants. Mr. Mather was permitted to attend their meetings." Difficulties arose in connection with Plymouth Colony. It was the determination in England that Plymouth should no longer be separately chartered, but should be joined to Massachusetts or New York. In opposing the former more natural union, the Plymouth people very nearly brought about their annexation to New York; but Mather's influence averted that result. "The first draught of a charter was objected to by the agents, because of its limitation of the powers of the governor, who was to be appointed by the king. The second draught was also objected to; whereupon the agents were informed that they 'must not consider themselves as plenipotentiaries from a foreign state, and that if they were unwilling

to submit to the pleasure of the king, his majesty would settle the country without them, and they might take what would follow.' Nothing remained, therefore, but to decide whether they would submit, or continue without a charter, and at the mercy of the king." The two colleagues who had been associated with Mather opposed submission, but the latter yielded, and the charter was signed. "By the terms of this new charter the territories of Massachusetts, Plymouth, and Maine, with a tract farther east, were united into one jurisdiction, whose officers were to consist of a governor, a deputy governor, and a secretary, appointed by the king, and 28 councillors, chosen by the people. A General Court was to be holden annually, on the last Wednesday in May, and at such other times as the governor saw fit; and each town was authorized to choose two deputies to represent them in this court. The choice of these deputies was conceded to all freeholders having an estate of the value of forty pounds sterling, or land yielding an income of at least forty shillings per annum; and every deputy was to take the oath of allegiance prescribed by the crown. All residents of the province and their children were entitled to the liberties of natural born subjects; and liberty of conscience was secured to all but Papists. . . . To the governor was given a negative upon all laws enacted by the General Court, without his consent in writing none were valid; and all receiving his sanction were to be transmitted to the king for approval, and if rejected at any time within three years were to be of no effect. The governor was empowered to establish courts, levy taxes, convene the militia, carry on war, exercise martial law, with the consent of the council, and erect and furnish all requisite forts. . . . Such was the province charter of 1692—a far different instrument from the colonial charter of 1629. It effected a thorough revolution in the country. The form of government, the powers of the people, and the entire foundation and objects of the body politic, were placed upon a new basis; and the dependence of the colonies upon the crown was secured. . . . It was on Saturday, the 14th of May, 1692, that Sir William Phips arrived at Boston as the first governor of the new province."—J. S. Barry, *Hist. of Mass.*, v. 1, ch. 18.

ALSO IN: W. H. Whitmore, *The Inter-Charter Period (Memorial Hist. of Boston, v. 2)*.—G. P. Fisher, *The Colonial Era*, ch. 13.

A. D. 1689-1697.—King William's War.—Temporary conquest of Acadia.—Disastrous expedition against Quebec.—Threatened attack by the French. See CANADA: A. D. 1689-1690; and 1692-1697.

A. D. 1690.—The first Colonial Congress. See UNITED STATES OF AM.: A. D. 1690.

A. D. 1692.—The Salem Witchcraft madness: in its beginning.—"The people of Massachusetts in the 17th century, like all other Christian people at that time,—at least, with extremely rare individual exceptions,—believed in the reality of a hideous crime called 'witchcraft'. . . . In a few instances witches were believed to have appeared in the earlier years of New England. But the cases had been sporadic. . . . With three or four exceptions . . . no person appears to have been punished for witchcraft in Massachusetts, nor convicted of it, for more than sixty years after the settlement, though

there had been three or four trials of other persons suspected of the crime. At the time when the question respecting the colonial charter was rapidly approaching an issue, and the public mind was in feverish agitation, the ministers sent out a paper of proposals for collecting facts concerning witchcrafts and other 'strange apparitions.' This brought out a work from President [Increase] Mather entitled 'Illustrious Providences,' in which that influential person related numerous stories of the performances of persons leagued with the Devil. The imagination of his restless young son [Cotton Mather] was stimulated, and circumstances fed the flame." A poor Irish washerwoman, in Boston, accused by some malicious children named Goodwin, who played antics which were supposed to signify that they had been bewitched, was tried, convicted and sent to the gallows (1688) as a witch. "Cotton Mather took the oldest 'afflicted' girl to his house, where she dexterously played upon his self-conceit to stimulate his credulity. She satisfied him that Satan regarded him as his most terrible enemy, and avoided him with especial awe. . . . Mather's account of these transactions ['Late Memorable Providences relating to Witchcrafts and Possessions'], with a collection of other appropriate matter, was circulated not only in Massachusetts, but widely also in England, where it obtained the warm commendation of Richard Baxter; and it may be supposed to have had an important effect in producing the more disastrous delusion which followed three years after. . . . Mr. Samuel Parris was minister of a church in a part of Salem which was then called 'Salem Village,' and which now as a separate town bears the name of Danvers. He was a man of talents, and of repute for professional endowments, but avaricious, wrong-headed, and ill-tempered. Among his parishioners, at the time of his installation and afterwards, there had been angry disputes about the election of a minister, which had never been composed. Neighbors and relations were embittered against each other. Elizabeth Parris the minister's daughter, was now nine years old. A niece of his, eleven years old, lived in his family. His neighbor, Thomas Putnam, the parish clerk, had a daughter named Ann, twelve years of age. These children, with a few other young women, of whom two were as old as twenty years or thereabouts, had become possessed with a wild curiosity about the sorceries of which they had been hearing and reading, and used to hold meetings for study, if it may be so called, and practice. They learned to go through motions similar to those which had lately made the Goodwin children so famous. They forced their limbs into grotesque postures, uttered unnatural outcries, were seized with cramps and spasms, became incapable of speech and of motion. By and by [March, 1692], they interrupted public worship. . . . The families were distressed. The neighbors were alarmed. The physicians were perplexed and baffled, and at length declared that nothing short of witchery was the trouble. The kinsfolk of the 'afflicted children' assembled for fasting and prayer. Then the neighboring ministers were sent for, and held at Mr. Parris's house a prayer-meeting which lasted through the day. The children performed in their presence, and the result was a confirmation by the ministers of the opinion of the doctors. Of course, the next inquiry was

by whom the manifest witchcraft was exercised. It was presumed that the unhappy girls could give the answer. For a time they refused to do so. But at length, yielding to an importunity which it had become difficult to escape unless by an avowal of their fraud, they pronounced the names of Good, Osborn, and Tituba. Tituba—half Indian, half negro—was a servant of Mr. Parris, brought by him from Barbadoes, where he had formerly been a merchant. Sarah Good was an old woman, miserably poor. Sarah Osborn had been prosperous in early life. She had been married twice, and her second husband was still living, but separated from her. Her reputation was not good, and for some time she had been bedridden, and in a disturbed nervous state. . . . Tituba, whether in collusion with her young mistress, or, as was afterwards said, in consequence of having been scourged by Mr. Parris, confessed herself to be a witch, and charged Good and Osborn with being her accomplices. The evidence was then thought sufficient, and the three were committed to gaol for trial. Martha Corey and Rebecca Nurse were next cried out against. Both were church-members of excellent character, the latter, seventy years of age. They were examined by the same Magistrates, and sent to prison, and with them a child of Sarah Good, only four or five years old, also charged with diabolical practices."—J. G. Palfrey, *Hist. of N. Eng.*, bk. 4, ch. 4 (n. 4).

ALSO IN: C. W. Upham, *Salem Witchcraft*, pt. 3 (v. 2).—S. G. Drake, *Annals of Witchcraft in New Eng.*

A. D. 1692.—The Salem Witchcraft madness: in its culmination.—"Now a new feature of this thing showed itself. The wife of Thomas Putnam joined the children, and 'makes most terrible shrieks' against Goody Nurse—that she was bewitching her, too. On the 3d of April, Minister Parris preached long and strong from the Text, 'Have I not chosen you twelve, and one of you is a devil?' in which he bore down so hard upon the Witches accused that Sarah Cloyse, the sister of Nurse, would not sit still, but 'went out of meeting'; always a wicked thing to do, as they thought, but now a heinous one. At once the children cried out against her and she was clapt into prison with the rest. Through the months of April and May, Justices Hawthorne and Curwin (or Corwin), with Marshal George Herrick, were busy getting the Witches into jail, and the good people were startled, astounded, and terror-struck, at the numbers who were seized. . . . Bridget Bishop, only, was then brought to trial, for the new Charter and new Governor (Phips), were expected daily. She was old, and had been accused of witchcraft twenty years before. . . . So, as there was no doubt about her, she was quickly condemned, and hung on the 10th day of this pleasant June, in the presence of a crowd of sad and frightened people. . . . The new Governor, Phips, one of Mather's Church, fell in with the prevailing fear, and a new bench of special Judges, composed of Lieutenant-Governor Stoughton, Major Saltonstall, Major Richards, Major Gidney, Mr. Wait Winthrop, Captain Sewall, and Mr. Sargent, were sworn in, and went to work. On the 30th of June, Sarah Good, Rebekah Nurse, Susannah Martin, Elizabeth How, and Sarah Wilder, were brought to trial; all were found guilty, and sentenced to death, except Nurse,

who, being a Church member, was acquitted by the jury. At this, the 'afflicted' children fell into fits, and others made great outcries; and the popular dissatisfaction was so great, that the Court sent them back to the jury room, and they returned shortly, with a verdict of Guilty! The Rev. Mr. Noyes, of Salem, then excommunicated Nurse, delivered her to Satan, and they all were led out to die. Minister Noyes told Susannah Martin that she was a witch, and knew it, and she had better confess it; but she refused, and told him that 'he lied,' and that he knew it; and, 'that if he took away her life, God would give him blood to drink;' which curse is now traditionally believed, and that he was choked with blood. They were hanged, protesting their innocence; and there was none to pity them. On the 5th of August, a new batch was haled before the Court. Reverend George Burroughs, John Proctor and his wife, John Willard, George Jacobs, and Martha Carrier. Burroughs was disliked by some of the Clergy, for he was tainted with Roger Williams's Heresies of Religious Freedom; and he was particularly obnoxious to Mather, for he had spoken slightly of witchcraft, and had even said there was no such thing as a witch. Willard had been a constable employed in seizing witches, but, becoming sick of the business, had refused to do it any more. The children at once cried out, that he, too, was a witch; he fled for his life, but was caught at Nashua, and brought back. Old Jacobs was accused by his own grand-daughter; and Carrier was convicted upon the testimony of her own children. They were all quickly convicted and sentenced. . . . All but Mrs. Proctor saw the last of earth on the 19th of August. They were hanged on Gallows Hill. Minister Burroughs made so moving a prayer, closing with the Lord's Prayer, which it was thought no witch could say, that there was fear lest the crowd should hinder the hanging. As soon as he was turned off, Mr. Mather, sitting on his horse, addressed the people, to prove to them that Burroughs was really no Minister, and to show how he must be guilty, notwithstanding his prayer, for the devil could change himself into an angel of light. . . . Giles Cory, an old man of 80, saw that the accused were prejudged, and refused to plead to the charge against him. What could be done with him? It was found that for this, by some sort of old law, he might be pressed to death. So on the 16th of September, just as the autumn tints were beginning to glorify the earth, he was laid on the ground, bound hand and foot, and stones were piled upon him, till the tongue was pressed out of his mouth; 'the Sheriff with his cane forced it in again when he was dying.' Such cruel things did fear—fear of the Devil—lead these people to do. He was the first and last who died in New England in this way. On the 22d of September, eight of the sentenced were carted up Gallows Hill and done to death. Amid a great concourse of men, women, and children, from the neighboring villages, and from Boston, the victims went crying and singing, dragged through the lines of terror-stricken or pitying people. Some would have rescued them, but they had no leaders, and knew not how to act; so that tragedy was consummated; and the Reverend Mr. Noyes, pointing at them, said, 'What a sad thing it is to see eight fire-brands of hell hanging there!' Sad indeed! Nineteen

had now been hung. One pressed to death. Eight were condemned. A hundred and fifty were in prison; and two hundred more were accused by the 'afflicted.' Some fifty had acknowledged themselves witches, of whom not one was executed. . . . It was now October, and this mischief seemed to be spreading like fire among the dry grass of the Prairies; and a better quality of persons was beginning to be accused by the bewitched. . . . But these accusations made people consider, and many began to think that they had been going on too fast. 'The juries changed sooner than the judges, and they sooner than the Clergy.' 'At last,' says one of them, 'it was evidently seen that there must be a stop put, or the generation of the church of God would fall under that condemnation.' In other words, the better class of church members were in danger! At the January session, only three were convicted, and they were reprieved; whereat Chief Justice Stoughton rose in anger, and said, 'The Lord be merciful to this country!' In the spring, Governor Phips, being about to leave the country, pardoned all who were condemned, and the jails were delivered. The excitement subsided as rapidly as it had arisen, but the evil work was done."—C. W. Elliott, *The New Eng. History*, v. 2, ch. 8.

ALSO IN: S. P. Fowler, ed., *Salem Witchcraft (including Calef's "More Wonders of the Invisible World," etc.)*.—C. S. Osgood and H. M. Batchelder, *Hist. Sketch of Salem*, ch. 2.—J. S. Barry, *Hist. of Mass.*, v. 2, ch. 2.

A. D. 1692-1693.—The Salem Witchcraft madness: its ending, and the reaction.—"On the second Wednesday in October, 1692, about a fortnight after the last hanging of eight at Salem, the representatives of the colony assembled; and the people of Andover, their minister joining with them appeared with their remonstrance against the doings of the witch tribunals. Of the discussions that ensued no record is preserved; we know only the issue. The general court ordered by bill a convocation of ministers, that the people might be led in the right way as to the witchcraft. . . . They abrogated the special court, established a tribunal by statute, and delayed its opening till January of the following year. This interval gave the public mind security and freedom; and though Phips still conferred the place of chief judge on Stoughton, yet jurors acted independently. When, in January, 1693, the court met at Salem, six women of Andover, renouncing their confessions, treated the witchcraft but as something so called, the bewildered but as 'seemingly afflicted.' A memorial of like tenor came from the inhabitants of Andover. Of the presentments, the grand jury dismissed more than half; and of the twenty-six against whom bills were found through the testimony on which others had been condemned, verdicts of acquittal followed. . . . The people of Salem village drove Parris from the place; Noyes regained favor only by a full confession and consecrating the remainder of his life to deeds of mercy. Sewall, one of the judges, by rising in his pew in the Old South meeting-house on a fast-day and reading to the whole congregation a paper in which he bewailed his great offence, recovered public esteem. Stoughton never repented. The diary of Cotton Mather proves that he, who had sought the foundation of faith in tales of wonders, himself 'had temptations to

atheism, and to the abandonment of all religion as a mere delusion.'"—G. Bancroft, *Hist. of the U. S. (Author's last rev.)*, pt. 3, ch. 3 (v. 2).—"It was long before the public mind recovered from its paralysis. No one knew what ought to be said or done, the tragedy had been so awful. The parties who had acted in it were so numerous, and of such standing, including almost all the most eminent and honored leaders of the community from the bench, the bar, the magistracy, the pulpit, the medical faculty, and in fact all classes and descriptions of persons; the mysteries connected with the accusers and confessors; the universal prevalence of the legal, theological, and philosophical theories that had led to the proceedings; the utter impossibility of realizing or measuring the extent of the calamity; and the general shame and horror associated with the subject in all minds; prevented any open movement. . . . Dr. Bentley describes the condition of the community in some brief and pregnant sentences. . . . : 'As soon as the judges ceased to condemn, the people ceased to accuse. . . . Terror at the violence and guilt of the proceedings succeeded instantly to the conviction of blind zeal; and what every man had encouraged all professed to abhor. Few dared to blame other men, because few were innocent. The guilt and the shame became the portion of the country, while Salem had the infamy of being the place of the transactions.'"—C. W. Upham, *Salem Witchcraft*, v. 2, supplement.—"The probability seems to be that those who began in harmless deceit found themselves at length involved so deeply, that dread of shame and punishment drove them to an extremity where their only choice was between sacrificing themselves, or others to save themselves. It is not unlikely that some of the younger girls were so far carried along by imitation or imaginative sympathy as in some degree to 'credit their own lie.' . . . Parish and boundary feuds had set enmity between neighbors, and the girls, called on to say who troubled them, cried out upon those whom they had been wont to hear called by hard names at home. They probably had no notion what a frightful ending their comedy was to have; but at any rate they were powerless, for the reins had passed out of their hands into the sterner grasp of minister and magistrate. . . . In one respect, to which Mr. Upham first gives the importance it deserves, the Salem trials were distinguished from all others. Though some of the accused had been terrified into confession, yet not one persevered in it, but all died protesting their innocence, and with unshaken constancy, though an acknowledgment of guilt would have saved the lives of all. This martyr proof of the efficacy of Puritanism in the character and conscience may be allowed to outweigh a great many sneers at Puritan fanaticism."—J. R. Lowell, *Witchcraft (Among My Books, series 1)*.

ALSO IN: G. M. Beard, *Psychology of the Salem Witchcraft Excitement*.

A. D. 1703-1711.—Queen Anne's War. See NEW ENGLAND: A. D. 1702-1710; and CANADA: A. D. 1711-1713.

A. D. 1704.—The first Newspaper. See PRINTING, &c.: A. D. 1704-1729.

A. D. 1722-1725.—Renewed War with the northeastern Indians. See NOVA SCOTIA: A. D. 1713-1730.

A. D. 1744-1748.—King George's War.—The taking of Louisbourg and its restoration to France. See NEW ENGLAND: A. D. 1744; 1745; and 1745-1748.

A. D. 1754.—The Colonial Congress at Albany and Franklin's plan of Union. See UNITED STATES OF AM.: A. D. 1754.

A. D. 1755.—Expedition against Fort Beau Séjour in Nova Scotia. See NOVA SCOTIA: A. D. 1749-1755.

A. D. 1755-1760.—The French and Indian War, and conquest of Canada. See CANADA: A. D. 1750-1758, to 1760; NOVA SCOTIA: A. D. 1749-1755, 1755; OHIO (VALLEY): A. D. 1748-1754, 1754, 1755; CAPE BRETON ISLAND: A. D. 1758-1760.

A. D. 1761.—Harsh enforcement of revenue laws.—The Writs of Assistance and Otis's speech.—"It was in 1761, immediately after the overthrow of the French in Canada, that attempts were made to enforce the revenue laws more strictly than heretofore; and trouble was at once threatened. Charles Paxton, the principal officer of the custom-house in Boston, applied to the Superior Court to grant him the authority to use 'writs of assistance' in searching for smuggled goods. A writ of assistance was a general search-warrant, empowering the officer armed with it to enter, by force if necessary, any dwelling-house or warehouse where contraband goods were supposed to be stored or hidden. A special search-warrant was one in which the name of the suspected person, and the house which it was proposed to search, were accurately specified, and the goods which it was intended to seize were as far as possible described. In the use of such special warrants there was not much danger of gross injustice or oppression. . . . But the general search warrant, or 'writ of assistance,' as it was called because men try to cover up the ugliness of hateful things by giving them innocent names, was quite a different affair. It was a blank form upon which the custom-house officer might fill in the names of persons and descriptions of houses and goods to suit himself. . . . The writ of assistance was therefore an abominable instrument of tyranny. Such writs had been allowed by a statute of the evil reign of Charles II.; a statute of William III. had clothed custom-house officers in the colonies with like powers to those which they possessed in England; and neither of these statutes had been repealed. There can therefore be little doubt that the issue of such search-warrants was strictly legal, unless the authority of Parliament to make laws for the colonies was to be denied. James Otis then held the crown office of advocate-general, with an ample salary and prospects of high favour from government. When the revenue officers called upon him, in view of his position, to defend their cause, he resigned his office and at once undertook to act as counsel for the merchants of Boston in their protest against the issue of the writs. A large fee was offered him, but he refused it. 'In such a cause,' said he, 'I despise all fees.' The case was tried in the council-chamber at the east end of the old town-hall, or what is now known as the 'Old State-House,' in Boston. Chief-justice Hutchinson presided, and Jeremiah Gridley, one of the greatest lawyers of that day, argued the case for the writs in a very powerful speech. The reply of Otis, which took five hours in the

delivery, was one of the greatest speeches of modern times. It went beyond the particular legal question at issue, and took up the whole question of the constitutional relations between the colonies and the mother-country. At the bottom of this, as of all the disputes that led to the Revolution, lay the ultimate question whether Americans were bound to yield obedience to laws which they had no share in making. This question, and the spirit that answered it flatly and doggedly in the negative, were heard like an undertone pervading all the arguments in Otis's wonderful speech and it was because of this that the young lawyer John Adams, who was present, afterward declared that on that day 'the child Independence was born.' Chief-justice Hutchinson . . . reserved his decision until advice could be had from the law-officers of the crown in London; and when next term he was instructed by them to grant the writs, this result added fresh impetus to the spirit that Otis's eloquence had aroused. The custom-house officers, armed with their writs, began breaking into warehouses and seizing goods which were said to have been smuggled. In this rough way they confiscated private property to the value of many thousands of pounds; but sometimes the owners of warehouses armed themselves and barricaded their doors and windows, and thus the officers were often successfully defied, for the sheriff was far from prompt in coming to aid them."—J. Fiske, *The War of Independence*, ch. 4.

ALSO IN: W. Tudor, *Life of James Otis*, ch. 5-7.—F. Bowen, *Life of James Otis* (*Library of Am. Biog.*, series 2, v. 2), ch. 2-3.

A. D. 1761-1766.—The question of taxation by Parliament.—The Sugar Act.—The Stamp Act and its repeal.—The Declaratory Act.—The Stamp Act Congress.—Non-importation agreements. See UNITED STATES OF AM.: A. D. 1760-1775, to 1766.

A. D. 1768.—The Circular Letter to other colonies. See UNITED STATES OF AM.: A. D. 1767-1768.

A. D. 1768-1770.—The quartering of troops in Boston.—The "Massacre."—Removal of the troops. See BOSTON: A. D. 1768; and 1770.

A. D. 1769.—The Boston patriots threatened.—Virginia roused to their support. See UNITED STATES OF AM.: A. D. 1769.

A. D. 1770-1773.—Repeal of the Townshend duties except on Tea.—Committees of Correspondence instituted.—The coming of the Tea Ships. See UNITED STATES OF AM.: A. D. 1770; and 1772-1773.

A. D. 1773.—Destruction of Tea at Boston. See BOSTON: A. D. 1773.

A. D. 1774.—The Boston Port Bill and the Massachusetts Act.—Free government destroyed and commerce interdicted.—The First Continental Congress. See UNITED STATES OF AM.: A. D. 1774 (MARCH-APRIL); and BOSTON: A. D. 1774.

A. D. 1774.—Organization of an independent Provisional Government.—The Committee of Safety.—Minute-men.—"Governor Gage issued writs, dated September 1, convening the General Court at Salem on the 5th of October, but dissolved it by a proclamation dated September 28, 1774. The members elected to it, pursuant to the course agreed upon, resolved themselves into a Provincial Congress. This body, on

the 26th of October, adopted a plan for organizing the militia, maintaining it, and calling it out when circumstances should render it necessary. It provided that one quarter of the number enrolled should be held in readiness to muster at the shortest notice, who were called by the popular name of minute-men. An executive authority—the Committee of Safety—was created, clothed with large discretionary powers; and another called the Committee of Supplies.” —R. Frothingham, *Hist. of the Siege of Boston*, p. 41.—Under the Provincial Congress and the energetic Committee of Safety (which consisted at the beginning of Hancock, Warren and Church, of Boston, Richard Devens of Charlestown, Benj. White of Brookline, Joseph Palmer of Braintree, Abraham Watson of Cambridge, Azor Orne of Marblehead, and Norton Quincy, who declined) a complete and effective administration of government, entirely independent of royal authority, was brought into operation. Subsequently, John Pigeon of Newton, William Heath of Roxbury, and Jabez Fisher of Wrentham, were added to the committee.—R. Frothingham, *Life and Times of Joseph Warren*, p. 389.—See UNITED STATES OF AM.: A. D. 1775 (APRIL).

A. D. 1775.—The beginning of the War of the American Revolution.—Lexington.—Concord.—The country in arms and Boston under siege.—Ticonderoga.—Bunker Hill.—The Second Continental Congress. See UNITED STATES OF AM.: A. D. 1775.

A. D. 1775-1776.—Washington in command at Cambridge.—British evacuation of Boston. See UNITED STATES OF AM.: A. D. 1775-1776.

A. D. 1776 (April—May).—Independence assumed. “The General Court, at their session in April [1776], passed a resolve to alter the style of writs and other legal processes—substituting ‘the people and government of Massachusetts’ for George III.; and, in dating official papers, the particular year of the king was omitted, and only the year of our Lord was mentioned. Early in May, likewise, an order was passed and published, by which the people of the several towns in the province were advised to give instructions to their respective representatives, to be chosen for the following political year, on the subject of independence. . . . The returns from the towns . . . were highly encouraging.” —J. S. Barry, *Hist. of Mass.*, v. 3, ch. 3.

A. D. 1776 (July).—The Declaration of Independence by the Continental Congress. See UNITED STATES OF AM.: A. D. 1776 (JULY).

A. D. 1776-1777.—The struggle for New York and the Hudson.—The campaigns in New Jersey and on the Delaware.—Burgoyne's invasion and surrender. See UNITED STATES OF AM.: A. D. 1776 (AUG.) to 1777 (JULY—OCT.).

A. D. 1777-1783.—The Articles of Confederation.—Alliance with France.—Treason of Arnold.—The war in the south.—Surrender of Cornwallis.—Peace. See UNITED STATES OF AM.: A. D. 1777-1781, to 1783.

A. D. 1779.—Framing and adoption of a State Constitution. See UNITED STATES OF AM.: A. D. 1776-1779.

A. D. 1781.—Emancipation of Slaves. See SLAVERY, NEGRO: A. D. 1688-1781.

A. D. 1785.—Western territorial claims and their cession to the United States. See UNITED STATES OF AM.: A. D. 1781-1786.

A. D. 1786.—Settlement of land claims with New York.—The cession of western New York. See NEW YORK: A. D. 1786-1799.

A. D. 1786-1787.—Shays Rebellion.—Business depression, with heavy taxes, and stringent laws bearing harshly upon debtors, had brought about a state of discontent which agitators made the most of. In the neighborhood of Worcester this came to a head, during the fall of 1786, in organized insurrection, under one Capt. Daniel Shays. The sheriff was powerless, and friends of order were much alarmed. Congress “offered secret aid to the authorities of Massachusetts upon the pretext of dispatching troops against the Indians. But the tender was not accepted; for in James Bowdoin the State had an executive equal to the emergency. Availing himself of a temporary loan from patriotic citizens, he raised and equipped a militia force, large enough to overawe the rebels, which, under General Lincoln's command, was promptly marched against them. Shays appears to have had more of the demagogue than warrior about him, and his followers fled as the troops advanced [being finally surprised and routed at Petersham, Feb. 4, 1787]. By midwinter civil order was restored; but the legislature made some concessions not less just than prudent. The vanquished rebels were treated with marked clemency. But Governor Bowdoin's energy lost him a re-election the following spring, and one of the manliest pioneers of Continental reform was remitted to private life for the rest of his days.” —J. Schouler, *Hist. of the U. S.*, v. 1, ch. 1, sect. 1.

ALSO IN: J. B. McMaster, *Hist. of the people of the U. S.*, v. 1, ch. 8 —J. G. Holland, *Hist. of W. Mass.*, v. 1, ch. 16-18.—M. A. Green, *Springfield*, 1636-1886, ch. 14.

A. D. 1788.—Ratification of the Federal Constitution. See UNITED STATES OF AM.: A. D. 1787-1789.

A. D. 1812.—1814.—Opposition of Federalists to the war with England. See UNITED STATES OF AM.: A. D. 1812.

A. D. 1814.—The Hartford Convention. See UNITED STATES OF AM.: A. D. 1814 (DECEMBER).

A. D. 1818-1821.—The founding of Amherst College. See EDUCATION, MODERN: AMERICA: A. D. 1818-1821.

A. D. 1820.—The district of Maine erected into a distinct State. See MAINE: A. D. 1820.

A. D. 1848-1892.—Free Libraries. See LIBRARIES, MODERN: U. S.

A. D. 1861 (April).—Attack on the Sixth Regiment in Baltimore. See UNITED STATES OF AM.: A. D. 1861 (APRIL).

A. D. 1861 (April—May).—The Eighth Regiment. See UNITED STATES OF AM.: A. D. 1861 (APRIL—MAY: MARYLAND).

A. D. 1865.—The Founding of Massachusetts Institute of Technology. See EDUCATION, MODERN: REFORMS: A. D. 1865-1886.

MASSACRES.—Of the Alamo. See TEXAS: A. D. 1824-1836. . . . At Alexandria by Caracalla. See ALEXANDRIA: A. D. 215. . . . At Amboyna. See INDIA: A. D. 1600-1702. . . . In Argos. See GREECE: B. C. 371-362. . . . Of

Armagnacs. See FRANCE: A. D. 1415-1419. . . . Of Armenians. See TURKS: A. D. 1894. . . . At Bagdad. See TURKS: A. D. 1623-1640. . . . At Barcelona. See SPAIN: A. D. 1718-1714. . . . At Beziers. See ALBIGENES:

A. D. 1209. . . . At Buffalo and Black Rock. See UNITED STATES OF AM.: A. D. 1818. . . . At Casena. See ITALY: A. D. 1848-1893. . . . At Cawnpuf. See INDIA: A. D. 1857. . . . At Cherry Valley. See UNITED STATES OF AM.: A. D. 1778. . . . At Cholula. See MEXICO: A. D. 1519. . . . Of Conestogas by the Paxton boys. See AMERICAN ABORIGINES: SUSQUEHANNAS. . . . At Croia. See GREECE: A. D. 1454-1479. . . . At Cusco. See PERU: A. D. 1531-1533. . . . At Deerfield. See NEW ENGLAND: A. D. 1675. . . . At Delhi (by Nadir Shah). See INDIA: A. D. 1662-1748. . . . Of Devil's Hole. See DEVIL'S HOLE. . . . At Drogheda. See IRELAND: A. D. 1649-1650. . . . Of Florida Huguenots. See FLORIDA: A. D. 1565. . . . At Fort Dearborn. See UNITED STATES OF AM.: A. D. 1812. . . . At Fort Mims. See UNITED STATES OF AM.: A. D. 1813-1814. . . . At Fort Pillow. See UNITED STATES OF AM.: A. D. 1864. . . . At Fort William Henry. See CANADA: A. D. 1756-1757. . . . Of Fox Indians. See CANADA: A. D. 1711-1713. . . . Of French by the Natchez. See LOUISIANA: A. D. 1719-1750. . . . Of Glenco. See SCOTLAND: A. D. 1692. . . . At Goliad. See TEXAS: A. D. 1824-1836. . . . At Haarlem. See NETHERLANDS: A. D. 1572-1573. . . . At Jerusalem (by Pompey). See JEWS: B. C. 166-40. . . . At Jerusalem (by Titus). See JEWS: A. D. 66-70. . . . At Jerusalem (by Persians and Jews). See JERUSALEM: A. D. 615. . . . At Jerusalem (by Crusaders). See JERUSALEM: A. D. 1099. . . . At Jerusalem (by Carismians). See JERUSALEM: A. D. 1242. . . . Of the Legions of Varus. See GERMANY: B. C. 8-A. D. 11. . . . At Limoges. See FRANCE: A. D. 1830-1880. . . . Of Logan's Kin. See OHIO: A. D. 1774. . . . At Magdeburg. See GERMANY: A. D. 1630-1631. . . . Of the Mamelukes (1811). See EGYPT: A. D. 1803-1811. . . . Of the Marsi. See GERMANY: A. D. 14-16. . . . At Mechlin. See NETHERLANDS: A. D. 1572-1573. . . . At Melos. See GREECE: B. C. 416. . . . By the Mongols. See MONGOLS. . . . Of Moravians. See MORAVIAN BRETHREN. . . . Of the Mountain Meadows (1857). See UTAH: A. D. 1857-1859. . . . At Mullaghmast. See IRELAND: A. D. 1599-1603. . . . At Naarden. See NETHERLANDS: A. D. 1572-1573. . . . At Negropont. See GREECE: A. D. 1454-1479. . . . At New Orleans. See LOUISIANA: A. D. 1865-1867. . . . At Patna. See INDIA: A. D. 1757-1772. . . . Of Peterloo. See ENGLAND: A. D. 1816-1820. . . . At Rapallo. See ITALY: A. D. 1494-1496. . . . Of St. Bartholomew's Day. See FRANCE: A. D. 1572. . . . Of St. Brice's Day (1002). See ENGLAND: A. D. 979-1016. . . . At Schenectady. See CANADA: A. D. 1689-1690. . . . Of September, 1792, in the Paris Prisons. See FRANCE: A. D. 1792 (AUGUST-SEPTEMBER). . . . Of the Shiites. See TURKS: A. D. 1481-1520. . . . The Sicilian Vespers (1282). See ITALY (SOUTHERN): A. D. 1282-1300. . . . At Smerwick. See IRELAND: A. D. 1599-1603. . . . At Smyrna. See GREECE: A. D. 1821-1829. . . . At Thebes. See GREECE: B. C. 836-835. . . . At Thessalonica by Theodosius. See THESSALONICA: A. D. 390. . . . By Timour. See TIMOUR. . . . At Vassy. See FRANCE: A. D. 1560-1563. . . . Of Virginia Colonists. See VIRGINIA: A. D. 1622-1624. . . . Of Waldenses. See FRANCE: A. D. 1532-1547. ALSO WALDENSES A. D. 1655. . . . At Wyo-

ming. See UNITED STATES OF AM.: A. D. 1778. . . . At Zaharah. See SPAIN: A. D. 1476-1492. . . . At Zutphen. See NETHERLANDS: A. D. 1572-1573.

MASSAGETÆ, The. See SCYTHIANS.

MASSALIANS, The. See MYSTICISM.

MASSALIOTS.—The people of Massilia.

MASSENA, Marshal, Campaigns of. See FRANCE: A. D. 1796-1797 (OCTOBER-APRIL); 1798-1799 (AUGUST-APRIL); 1799 (APRIL-SEPTEMBER) and (AUGUST-DECEMBER) 1800-1801 (MAY-FEBRUARY); 1805 (MARCH-DECEMBER); 1805-1806 (DECEMBER-SEPTEMBER); and SPAIN: A. D. 1810-1812.

MASSILIA. See PHOCÆANS.

MASSORETES. See MASORETES.

MASTER OF THE ROLLS. See LAW, EQUITY: A. D. 1066.

MASULIPATAM, English capture of (1759). See INDIA: A. D. 1758-1761.

MATABELELAND, or Zambesia. See SOUTH AFRICA: A. D. 1885-1893.

MATAGUAYAS, The. See BOLIVIA: ABORIGINAL INHABITANTS.

MATELOTAGE. See AMERICA: A. D. 1639-1700.

MATHER, Cotton, and the Witchcraft excitement. See MASSACHUSETTS: A. D. 1692.

MATHER, Increase, and the new Massachusetts Charter. See MASSACHUSETTS: A. D. 1689-1692.

MATILDA, Donation of the Countess. See PAPACY: A. D. 1077-1102.

MATRONALIA, The.—A Roman festival, commemorating the peace made by the Sabine matrons between their kinsmen and their Roman husbands.—See ROME: B. C. 753-510.

MATTIACI, The. See MOGONTIACUM.

MAURETANIA.—MOORS. See NUMIDIANS.

Under the Romans. See AFRICA: THE ROMAN PROVINCE.

A. D. 374-398.—Revolts of Firmus and Gildo. See ROME: A. D. 396-398.

Conquest by the Vandals. See VANDALS: A. D. 429-439.

Mahometan Conquest. See MAHOMETAN CONQUEST: A. D. 647-709.

Mediæval and Modern History. See MAROCCO; also, BARBARY STATES.

MAURICE, Roman Emperor (Eastern), A. D. 582-602. . . . Maurice, Prince of Orange. See NETHERLANDS: A. D. 1584-1585, to 1621-1633. . . . Maurice of Saxony. See GERMANY: A. D. 1546-1552.

MAURIENNE, Counts of.—The earliest title of the princes of the House of Savoy. See SAVOY: 11-15TH CENTURIES.

MAURITIUS. See MASCARENE ISLANDS.

MAURITIUS RIVER.—The name given by the Dutch to the Hudson River.

MAUSOLEUM AT HALICARNASSUS. See CARIANS.

MAUSOLEUM OF HADRIAN. See CASTLE ST. ANGELO.

MAXEN, Capitulation of. See GERMANY: A. D. 1759 (JULY-NOVEMBER).

MAXIMIAN, Emperor, A. D. 286-305.

MAXIMILIAN, Emperor of Mexico. See MEXICO: A. D. 1861-1867. . . . Maximilian I., Archduke of Austria, King of the Romans,

A. D. 1486-1493; Germanic Emperor, 1493-1519. . . . Maximilian II., Archduke of Austria, King of Hungary and Bohemia, and Germanic Emperor, 1564-1576.

MAXIMIN, Roman Emperor, A. D. 235-238.

MAXIMUS, Revolt of. See **BRITAIN**: A. D. 388-389.

MAXYANS, The. See **LIBYANS**.

MAY, OR MEY, Cape: The Name. See **NEW YORK**: A. D. 1610-1614.

MAY LAWS, The German. See **GERMANY**: A. D. 1873-1887.

MAY LAWS, The Russian, of 1882. See **JEWS**: 19TH CENTURY.

MAYAS, The. Their early civilization. See **AMERICAN ABORIGINES**: MAYAS; and **MEXICO**.

MAYENCE. See **MENTZ**.

MAYFLOWER, The Voyage of the. See **MASSACHUSETTS**: A. D. 1620.

MAYNOOTH, Siege of.—The castle of Maynooth, held by the Irish in the rebellion of 1535, was besieged by the English, stormed and taken, March 23 of that year, and twenty-six of its defenders hanged. The rebellion soon collapsed. —J. A. Froude, *Hist. of Eng.*, ch. 8.

MAYNOOTH GRANT, The. See **IRELAND**: A. D. 1844.

MAYO, Lord, The Indian administration and the assassination of. See **INDIA**: A. D. 1862-1876.

MAYOR OF THE PALACE.—“The Mayor of the Palace is met with in all the Frankish kingdoms. . . . The mayors were at first merely the first superintendents, the first administrators of the interior of the palace of the king; the chiefs whom he put at the head of his companions, of his leudes, still united around him. It was their duty to maintain order among the king's men, to administer justice, to look to all the affairs, to all the wants, of that great domestic society. They were the men of the king with the leudes; this was their first character, their first state. Now for the second. After having exercised the power of the king over his leudes, his mayors of the palace usurped it to their own profit. The leudes, by grants of public charges and fiefs, were not long before they became great proprietors. This new situation was superior to that of companions of the king; they detached themselves from him, and united in order to defend their common interests. According as their fortune dictated, the mayors of the palace sometimes resisted them, more often united with them, and, at first servants of the king, they at last became the chiefs of an aristocracy, against whom royalty could do nothing. These are the two principal phases of this institution: it gained more extension and fixedness in Austrasia, in the family of the Pepins, who possessed it almost a century and a half, than anywhere else.”—F. Guizot, *Hist. of Civilization*, v. 2 (*France*, v. 1), lect. 19.

Also in: W. C. Perry, *The Franks*, ch. 5.—See, also, **FRANKS**: A. D. 511-752.

MAYORUNA, OR BARBUDO, The. See **AMERICAN ABORIGINES**: ANDESIANS.

MAYPO, Battle of (1818). See **CHILE**: A. D. 1810-1818.

MAZACA.—“Mazaca [the capital city of ancient Cappadocia] was situated at the base of the great volcanic mountain Argæus (Argish), about 18,000 feet high. . . . The Roman emperor Tiberius changed the name of Mazaca to

Caesareia, and it is now Kaisariyeh on the Kara Su, a small stream which flows into the Halys (Kizil Ernak).”—G. Long, *Decline of the Roman Republic*, v. 5, ch. 22.

MAZARIN, Ministry of. See **FRANCE**: A. D. 1642-1643, to 1659-1661.

MAZARINE BIBLE, The. See **PRINTING**: A. D. 1430-1456.

MAZARQUIVER, Siege of (1563). See **BARBARY STATES**: A. D. 1563-1565.

MAZES. See **LABYRINTH**.

MAZOR. See **EGYPT**: ITS NAMES.

MAZZINI, Joseph, and the revolutionary movements in Italy. See **ITALY**: A. D. 1831-1848.

MEADE, General George G.: Command of the Army of the Potomac.—Battle of Gettysburg, and after. See **UNITED STATES OF AM**: A. D. 1863 (JUNE—JULY: PENNSYLVANIA); and (JULY—NOVEMBER: VIRGINIA).

MEAL-TUB PLOT, The. See **ENGLAND**: A. D. 1679 (JUNE).

MEANEE, Battle of (1843). See **SCINDE**.

MEAUX, Siege of.—The city of Meaux, on the Marne, in France, was vigorously besieged for seven months by Henry V of England, but surrendered on the 10th of May, 1422.—Montrelet, *Chronicles*, bk. 1, ch. 249-259.

MECCA: Rise of Mahometanism. See **MAHOMETAN CONQUEST**: 609-632.

A. D. 692.—Siege by the Omeyyads. See **MAHOMETAN CONQUEST**: A. D. 715-750.

A. D. 929.—Stormed and Pillaged by the Carmathians. See **CARMATHIANS**.

MECHANICSVILLE, Engagements at. See **UNITED STATES OF AM**: A. D. 1862 (MAY: VIRGINIA) THE PENINSULAR CAMPAIGN; and (JUNE—JULY: VIRGINIA).

MECHLIN: A. D. 1572.—Pillage and massacre by Alva's troops. See **NETHERLANDS**: A. D. 1572-1573.

A. D. 1585.—Surrender to the Spaniards. See **NETHERLANDS**: A. D. 1584-1585.

MECKLENBURG: The Duchy bestowed on Wallenstein (1628). See **GERMANY**: A. D. 1627-1629.

MECKLENBURG DECLARATION, The. See **NORTH CAROLINA**: A. D. 1775 (MAY).

MEDAIN.—Medain, “the twin city,” combined in one, under this Arabic name, the two contiguous Persian capitals, Seleucia and Ctesiphon. The name Medain signifies “cities,” and “it is said to have comprised a cluster of seven towns, but it is ordinarily taken to designate the twin cities of Seleucia and Ctesiphon.”—Sir W. Muir, *Annals of the Early Caliphate*, ch. 10 and 17.

MEDIA AND THE MEDES.—The country of the Medes, in its original extent, coincided very nearly with the northwestern part of modern Persia, between Farsistan and the Elburz mountains. “The boundaries of Media are given somewhat differently by different writers, and no doubt they actually varied at different periods; but the variations were not great, and the natural limits, on three sides at any rate, may be laid down with tolerable precision. Towards the north the boundary was at first the mountain chain closing in on that side the Urumiyeh

basin, after which it seems to have been held that the true limit was the Araxes, to its entrance on the low country, and then the mountain chain west and south of the Caspian. Westward, the line of demarcation may be best regarded as, towards the south, running along the centre of the Zagros region; and, above this, as formed by that continuation of the Zagros chain which separates the Urumiyeh from the Van basin. Eastward, the boundary was marked by the spur from the Elburz, across which lay the pass known as the Pylæ Caspiæ, and below this by the great salt desert, whose western limit is nearly in the same longitude. Towards the south there was no marked line or natural boundary. . . . We may place the southern limit with much probability about the line of the thirty-second parallel, which is nearly the present boundary between Irak and Fars."—G. Rawlinson, *Five great Monarchies: Media*, ch. 1.—"The nation of the Medes belongs to the group of the Arian tribes, which occupied the table-land of Iran. This has been already proved by the statement of Herodotus that in ancient times the Medians were called Areans by all men, by the religion of the Medes, and by all the Median words and names that have come down to us. According to Herodotus the nation consisted of six

tribes: the Arizanti, Busae, Struchates, Budli, Paraetaceni, and Magi. . . . The Magians we have already found to be a hereditary order of Priests."—M. Duncker, *Hist. of Antiquity*, bk. 8, ch. 1.—The Medes, who seem to have been long without any centralizing authority among them, became, at last, united under a monarchy which grew in power, until, in the later part of the seventh century B. C., it combined with Babylonia against the decaying Assyrian kingdom. Nineveh was destroyed by the confederates, and the dominions of Assyria were divided between them. The Median empire which then rose, by the side of the Babylonian, endured little more than half a century. It was the first of the conquests of Cyrus (see PERSIA: B. C. 549–521), or Kyros, the founder of the Persian empire (B. C. 549).—A. H. Sayce, *Ancient Empires of the East*, appendix 5.

ALSO IN: F. Lenormant and E. Chevallier, *Manual of the Ancient Hist. of the East*, bk. 5, ch. 1–4.

The ancient religion. See ZOROASTRIANS.

MEDIA ATROPATENE. See ATROPATENE.

MEDIÆVAL, Belonging to the MIDDLE AGES—which see.

MEDICAL SCIENCE.

Chronology of Development.—Renouard, in his "History of Medicine," arranges the chronology of the development of medical knowledge in three grand divisions or Ages, subdivided into eight periods. "The First Age commences with the infancy of society, as far back as historic tradition carries us, and terminates toward the end of the second century of the Christian era, at the death of Galen, during the reign of Septimus Severus. This lapse of time constitutes, in Medicine, the Foundation Age. The germ of the Healing Art, concealed, at first, in the instincts of men, is gradually developed; the basis of the science is laid, and great principles are discussed. . . . The Second Age, which may be called the Age of Transition, offers very little material to the history of Medicine. We see no longer the conflicts and discussions between partisans of different doctrines; the medical sects are confounded. The art remains stationary, or imperceptibly retrogrades. I can not better depict this epoch than by comparing it to the life of an insect in the nymphæ state; though no exterior change appears, an admirable metamorphosis is going on, imperceptibly, within. The eye of man only perceives the wonder after it has been finished. Thus from the 15th century, which is the beginning of the third and last Age of Medicine, or the Age of Renovation, Europe offers us a spectacle of which the most glorious eras of the republics of Greece and Rome only can give us an idea. It would seem as if a new life was infused into the veins of the inhabitants of this part of the world; the sciences, fine arts, industry, religion, social institutions, all are changed. A multitude of schools are open for teaching Medicine. Establishments which had no models among the ancients, are created for the purpose of extending to the poorer classes the benefits of the Healing Art. The

ingenious activity of modern Christians explores and is sufficient for everything. These three grand chronological divisions do not suffice to classify, in our minds, the principal phases of the history of Medicine; consequently, I have subdivided each age into a smaller number of sections, easy to be retained, and which I have named Periods. The first Age embraces four periods, the second and third ages, each, two. . . . The first period, which we name Primitive Period, or that of instinct, ends with the ruin of Troy, about twelve centuries before the Christian era. The second, called the Mystic or Sacred Period, extends from the dissolution of the 'Pythagorean Society' to about the year 500 A. C. The third period, which ends at the foundation of the Alexandrian Library, A. C., 320, we name the Philosophic Period. The fourth, which we designate the Anatomic, extends to the end of the first age, i. e., to the year 200 of the Christian era. The fifth is called the Greek Period; it ends at the destruction of the Alexandrian Library, A. D. 640. The sixth receives the surname of Arabic, and closes with the 14th century. The seventh period, which begins the third age, comprises the 15th and 16th centuries; it is distinguished as the Erudite. Finally, the eighth, or last period, embraces the 17th and 18th centuries [beyond which the writer did not carry his history]. I call it the Reform Period."—P. V. Renouard, *History of Medicine*, introd.

Egyptian.—"Medicine is practised among them [the Egyptians] on a plan of separation; each physician treats a single disorder, and no more: thus the country swarms with medical practitioners, some undertaking to cure diseases of the eye, others of the head, others again of the teeth, others of the intestines, and some those which are not local."—Herodotus, *History*,

tr. by Rawlinson, bk. 2, ch. 84.—“Not only was the study of medicine of very early date in Egypt, but medical men there were in such repute that they were sent for at various times from other countries. Their knowledge of medicine is celebrated by Homer (Od. iv. 229), who describes Polydamna, the wife of Thonis, as giving medicinal plants ‘to Helen, in Egypt, a country producing an infinite number of drugs . . . where each physician possesses knowledge above all other men.’ ‘O virgin daughter of Egypt,’ says Jeremiah (lxvi. 11), ‘in vain shalt thou use many medicines.’ Cyrus and Darius both sent to Egypt for medical men (Her. iii. 1, 182); and Pliny (xix. 5) says post mortem examinations were made in order to discover the nature of maladies. Doctors received their salaries from the treasury; but they were obliged to conform in the treatment of a patient to the rules laid down in their books, his death being a capital crime, if he was found to have been treated in any other way. But deviations from, and approved additions to, the sacred prescriptions were occasionally made; and the prohibition was only to prevent the experiments of young practitioners, whom Pliny considers the only persons privileged to kill a man with impunity. Aristotle indeed says ‘the Egyptian physicians were allowed after the third day to alter the treatment prescribed by authority, and even before, taking upon themselves the responsibility’ (Polit. iii. 11). Experience gradually taught them many new remedies; and that they had adopted a method (of no very old standing in modern practice) of stopping teeth with gold is proved by some mummies found at Thebes. Besides the protection of society from the pretensions of quacks, the Egyptians provided that doctors should not demand fees on a foreign journey or on military service, when patients were treated free of expense (Diod. i. 82), and we may conclude that they were obliged to treat the poor gratis, on consideration of the allowance paid them as a body by government. . . . Poor and superstitious people sometimes had recourse to dreams, to wizards, to donations to sacred animals, and to exvotos to the gods. . . . Charms were also written for the credulous, some of which have been found on small pieces of papyrus, which were rolled up and worn as by the modern Egyptians. Accoucheurs were women; which we learn from Exodus i. 15, and from the sculptures, as in modern Egypt. . . . The Egyptian doctors were of the sacerdotal order, like the embalmers, who are called (in Genesis i. 2) ‘Physicians,’ and were ‘commanded by Joseph to embalm his father.’ They were of the class called Pastophori, who, according to Clemens (Strom. lib. 6), being physicians, were expected to know about all things relating to the body, and diseases, and remedies, contained in the six last sacred books of Hermes. Manetho tells us that Athothes, the second king of Egypt, who was a physician, wrote the anatomical books; and his name, translated Hermogenes, may have been the origin of the tradition that ascribed them to Hermes, the Egyptian Thoth. Or the fable may mean that they were the result of intellect personified by Thoth, or Hermes.”—G. Rawlinson, *Note to Herodotus, as above.*—“The ancient Egyptians, though medical science was seriously studied by them, also thought that the efficacy of the treatment was enhanced

by magic formulæ. In the Ebers Papyrus, an important and very ancient manual of Egyptian medicine, the prescriptions for various medicaments are accompanied by the forms of exorcism to be used at the same time, and yet many portions of this work give evidence of the advanced knowledge of its authors.”—G. Ebers, *Egypt*, v. 2, pp. 61–62.—“Works on medicine abounded in Egypt from the remotest times, and the great medical library of Memphis, which was of immemorial antiquity, was yet in existence in the second century before our era, when Galen visited the Valley of the Nile. . . . Ateta, third king of the First Dynasty, is the reputed author of a treatise on anatomy. He also covered himself with glory by the invention of an infallible hair-wash, which, like a dutiful son, he is said to have prepared especially for the benefit of his mother. No less than five medical papyri have come down to our time, the finest being the celebrated Ebers papyrus, bought at Thebes by Dr. Ebers in 1874. This papyrus contains one hundred and ten pages, each page consisting of about twenty-two lines of bold hieratic writing. It may be described as an Encyclopædia of Medicine as known and practised by the Egyptians of the Eighteenth Dynasty; and it contains prescriptions for all kinds of diseases—some borrowed from Syrian medical lore, and some of such great antiquity that they are ascribed to the mythologic ages, when the gods yet reigned personally upon earth. Among others, we are given the recipe for an application whereby Osiris cured Ra of the headache. The Egyptians attached great importance to these ancient medical works, which were regarded as final. The physician who faithfully followed their rules of treatment might kill or cure with impunity; but if he ventured to treat the patient according to his own notions, and if that patient died, he paid for the experiment with his life. Seeing, however, what the canonical remedies were, the marvel is that anybody ever recovered from anything. Raw meat; horrible mixtures of nitre, beer, milk, and blood, boiled up and swallowed hot; the bile of certain fishes; and the bones, fat, and skins of all kinds of unsavory creatures, such as vultures, bats, lizards and crocodiles, were among their choicest remedies.”—A. B. Edwards, *Pharaohs, Fellahs and Explorers*, ch. 6.—“In Egypt . . . man does not die, but some one or something assassinates him. The murderer often belongs to our world, and can be easily pointed out. . . . Often, though, it belongs to the invisible world, and only reveals itself by the malignity of its attacks: it is a god, a spirit, the soul of a dead man, that has cunningly entered a living person, or that throws itself upon him with irresistible violence. . . . Whoever treats a sick person has therefore two equally important duties to perform. He must first discover the nature of the spirit in possession, and, if necessary, its name, and then attack it, drive it out, or even destroy it. He can only succeed by powerful magic, so he must be an expert in reciting incantations, and skilful in making amulets. He must then use medicine to contend with the disorders which the presence of the strange being has produced in the body; this is done by a finely graduated régime and various remedies. The cure-workers are therefore divided into several categories. Some incline towards sorcery, and have faith in formulas

and talismen only; they think they have done enough if they have driven out the spirit. Others extol the use of drugs; they study the qualities of plants and minerals, describe the diseases to which each of the substances provided by nature is suitable, and settle the exact time when they must be procured and applied: certain herbs have no power unless they are gathered during the night at the full moon, others are efficacious in summer only, another acts equally well in winter or summer. The best doctors carefully avoid binding themselves exclusively to either method."—G. Maspéro, *Life in Ancient Egypt and Assyria*, ch. 7.—"The employment of numerous drugs in Egypt has been mentioned by sacred and profane writers; and the medicinal properties of many herbs which grow in the deserts, particularly between the Nile and Red Sea, are still known to the Arabs, though their application has been but imperfectly recorded and preserved. . . . Homer, in the *Odyssey*, describes the many valuable medicines given by Polydamna, the wife of Thonis, to Helen, while in Egypt, 'a country whose fertile soil produces an infinity of drugs, some salutary and some pernicious, where each physician possesses knowledge above all other men'; and Pliny makes frequent mention of the productions of that country, and their use in medicine. He also notices the physicians of Egypt; and as if their number was indicative of the many maladies to which the inhabitants were subject, he observes that it was a country productive of numerous diseases. In this, however, he does not agree with Herodotus, who affirms that, 'after the Libyans, there are no people so healthy as the Egyptians, which may be attributed to the invariable nature of the seasons in their country.' In Pliny's time the introduction of luxurious habits and excess had probably wrought a change in the people; and to the same cause may be attributed the numerous complaints among the Romans, 'unknown to their fathers and ancestors.' The same author tells us that the Egyptians examined the bodies after death, to ascertain the nature of the diseases of which they had died; and we can readily believe that a people so far advanced in civilization and the principles of medicine as to assign each physician his peculiar branch, would have resorted to this effectual method of acquiring knowledge and experience for the benefit of the community. It is evident that the medical skill of the Egyptians was well known even in foreign and distant countries; and we learn from Herodotus, that Cyrus and Darius both sent to Egypt for medical men. . . . The Egyptians, according to Pliny, claimed the honour of having invented the art of curing diseases."—Sir J. G. Wilkinson, *Manners and Customs of the Ancient Egyptians*, ch. 10 (v. 2).—"The Ptolemies, down to the very termination of their dominion over Egypt, appear to have encouraged the curative art, and for the purpose of restoring declining health, surrounded themselves with the most illustrious physicians of the age. . . . The science of medicine of the period was fully represented at the Museum by distinguished professors, who, according to Athenæus, restored the knowledge of this art to the towns and islands of the Grecian Archipelago. . . . About the period of the absorption of the Egyptian kingdom into the expanding dominion of the Romans, the schools of Alexandria still

continued to be the centre of medical studies; and notwithstanding the apparent dissidence between the demands of a strict science and public affairs, its professors exhibited, equally with their brother philosophers, a taste for diplomacy. Dioscorides and Serapion, two physicians of Alexandria, were the envoys of the elder Ptolemy to Rome, and at a later date were bearers of dispatches from Cæsar to one of his officers in Egypt."—G. F. Fort, *Medical Economy During the Middle Ages*, ch. 3.

Babylonian.—The Babylonians "have no physicians, but when a man is ill, they lay him in the public square, and the passers-by come up to him, and if they have ever had his disease themselves or have known anyone who has suffered from it, they give him advice, recommending him to do whatever they found good in their own case, or in the case known to them. And no one is allowed to pass the sick man in silence without asking him what his ailment is."—Herodotus, *History*, trans. by G. Rawlinson, bk. 1, ch. 197 (v. 1).—"The incantations against diseases describe a great variety of cases. . . . But the most numerous are those which aim at the cure of the plague, fever, and 'disease of the head'; this latter, judging from the indications which are given of its symptoms and its effects, appears to have been a sort of erysipelas, or cutaneous disease. . . . These are the principal passages of a long incantation against 'the disease of the head': the tablet on which we find it bears six other long formulæ against the same evil. 'The disease of the head exists on man. The disease of the head, the ulceration of the forehead exists on man. The disease of the head marks like a tiara, the disease of the head from sunrise to sunset. In the sea and the vast earth a very small tiara is become the tiara, the very large tiara, his tiara. The diseases of the head pierce like a bull, the diseases of the head shoot like the palpitation of the heart. . . . The diseases of the head, like doves to their dove-cotes, like grasshoppers into the sky, like birds into space may they fly away. May the invalid be replaced in the protecting hands of his god!' This specimen will give the reader an idea of the uniform composition of these incantations against diseases, which filled the second book of the work under consideration. They all follow the same plan throughout, beginning with the definition of the disease and its symptoms, which occupies the greater part of the formula; and ending with a desire for deliverance from it, and the order for it to depart. Sometimes, however, the incantation of the magician assumes a dramatic form at the end. . . . We must add . . . the use of certain enchanted drinks, which, doubtless, really contained medicinal drugs, as a cure for diseases, and also of magic knots, the efficacy of which was so firmly believed in, even up to the middle ages. Here is a remedy which one of the formulæ supposes to have been prescribed by Hea against a disease of the head: 'Knot on the right and arrange flat in regular bands, on the left a woman's diadem; divide it twice in seven little bands; . . . gird the head of the invalid with it; gird the forehead of the invalid with it; gird the seat of life with it; gird his hands and his feet; seat him on his bed; pour on him enchanted waters. Let the disease of his head be carried away into the heavens like a violent wind; . . . may

the earth swallow it up like passing waters! Still more powerful than the incantations were conjurations wrought by the power of numbers."—F. Lenormant, *Chaldean Magic*, ch. 1 and 8.—

Finnish.—"The Finnish incantations for exorcising the demons of diseases were composed in exactly the same spirit, and founded upon the same data, as the Accadian incantations destined for the like purpose. They were formulæ belonging to the same family, and they often showed a remarkable similarity of language; the Egyptian incantations, on the contrary, having been composed by people with very different ideas about the supernatural world, assumed quite another form. This is an incantation from one of the songs of the Kalevala: 'O malady, disappear into the heavens; pain, rise up to the clouds; inflamed vapour, fly into the air, in order that the wind may take thee away, that the tempest may chase thee to distant regions, where neither sun nor moon give their light, where the warm wind does not inflame the flesh. O pain mount upon the winged steed of stone, and fly to the mountains covered with iron. For he is too robust to be devoured by disease, to be consumed by pains. Go, O diseases, to where the virgin of pains has her hearth, where the daughter of Wäinämöinen cooks pains, go to the hill of pains. There are the white dogs, who formerly howled in torments, who groaned in their sufferings.'"—F. Lenormant, *Chaldean Magic*, ch. 17.

Hindu.—"There is reason to . . . conclude, from the imperfect opportunities of investigation we possess, that in medicine, as in astronomy and metaphysics, the Hindus once kept pace with the most enlightened nations of the world; and that they attained as thorough a proficiency in medicine and surgery as any people whose acquisitions are recorded, and as indeed was practicable, before anatomy was made known to us by the discoveries of modern enquirers. It might easily be supposed that their patient attention and natural shrewdness would render the Hindus excellent observers; whilst the extent and fertility of their native country would furnish them with many valuable drugs and medicaments. Their Nidana or Diagnosis, accordingly, appears to define and distinguish symptoms with great accuracy, and their Dravyabhidhana, or *Materia Medica*, is sufficiently voluminous. They have also paid great attention to regimen and diet, and have a number of works on the food and general treatment, suited to the complaint, or favourable to the operation of the medicine administered. This branch they entitle Pathyapathya. To these subjects are to be added the Chikitsa, or medical treatment of diseases—on which subject they have a variety of compositions, containing much absurdity, with much that is of value, and the Rasavidyā, or Pharmacy, in which they are most deficient. All these works, however, are of little avail to the present generation, as they are very rarely studied, and still more rarely understood, by any of the practising empirics. The divisions of the science thus noticed, as existing in books, exclude two important branches, without which the whole system must be defective—Anatomy and Surgery. We can easily imagine, that these were not likely to have been much cultivated in Hindustan. . . . The Ayur Veda, as the medical writings of highest antiquity and authority are collectively called, is considered to

be a portion of the fourth or Atharva Veda, and is consequently the work of Brahma—by him it was communicated to Daksha the Prajapati, and by him the two Aswins, or sons of Surya, the Sun, were instructed in it, and they then became the medical attendants of the gods—a genealogy that cannot fail recalling to us the two sons of Esculapius, and their descent from Apollo. Now what were the duties of the Aswins, according to Hindu authorities?—the gods, enjoying eternal youth and health, stood in no need of physicians, and consequently they held no such sinecure station. The wars between the gods and demons, however, and the conflicts amongst the gods themselves, in which wounds might be suffered, although death might not be inflicted, required surgical aid—and it was this, accordingly, which the two Aswins rendered. . . . The meaning of these legendary absurdities is clear enough, and is conformable to the tenor of all history. Man, in the semi-barbarous state, if not more subject to external injuries than internal disease, was at least more likely to seek remedies for the former, which were obvious to his senses, than to imagine the means of relieving the latter, whose nature he could so little comprehend. Surgical, therefore, preceded medicinal skill; as Celsus has asserted, when commenting on Homer's account of Podalirius and Machaon, who were not consulted, he says, during the plague in the Grecian camp, although regularly employed to extract darts and heal wounds. . . . We may be satisfied that Surgery was once extensively cultivated, and highly esteemed by the Hindus. Its rational principles and scientific practice are, however, now, it may be admitted, wholly unknown to them. . . . It would be an enquiry of some interest to trace the period and causes of the disappearance of Surgery from amongst the Hindus: it is evidently of comparatively modern occurrence, as operative and instrumental practice forms so principal a part of those writings, which are undeniably most ancient; and which, being regarded as the composition of inspired writers, are held of the highest authority."—H. H. Wilson, *Essays on Sanskrit Literature*, pp. 269–273 and 391. "The number of medical works and authors is extraordinarily large. The former are either systems embracing the whole domain of the science, or highly special investigations of single topics, or, lastly, vast compilations prepared in modern times under the patronage of kings and princes. The sum of knowledge embodied in their contents appears really to be most respectable. Many of the statements on dietetics and on the origin and diagnosis of diseases bespeak a very keen observation. In surgery, too, the Indians seem to have attained a special proficiency, and in this department European surgeons might perhaps even at the present day still learn something from them, as indeed they have already borrowed from them the operation of rhinoplasty. The information, again, regarding the medicinal properties of minerals (especially precious stones and metals), of plants, and animal substances, and the chemical analysis and decomposition of these, covers certainly much that is valuable. Indeed, the branch of *Materia Medica* generally appears to be handled with great predilection, and this makes up to us in some measure at least for the absence of investigations in the field of natural science. On the diseases, &c., of horses and

elephants also there exist very special monographs. For the rest, during the last few centuries medical science has suffered great detriment from the increasing prevalence of the notion, in itself a very ancient one, that diseases are but the result of transgressions and sins committed, and from the consequent very general substitution of fastings, alms, and gifts to the Brahmans, for real remedies. . . . The influence . . . of Hindu medicine upon the Arabs in the first centuries of the Hijra was one of the very highest significance; and the Khalifs of Bagdad caused a considerable number of works upon the subject to be translated. Now, as Arabian medicine constituted the chief authority and guiding principle of European physicians down to the seventeenth century, it directly follows—just as in the case of astronomy—that the Indians must have been held in high esteem by these latter; and indeed Charaka is repeatedly mentioned in the Latin translations of Avicenna (Ibn Sina), Rhazes (Al Rasi), and Serapion (Ibn Serabi).—A. Weber, *Hist. of Indian Literature*, pp. 269-271.

Jewish.—"If we are to judge from the frequent mention of physicians (Ex. xv. 26; Isa. iii. 7; Jer. viii. 22; Sir. x. 11, xxxviii. 1 ff.; Matt. ix. 12; Mark v. 26; Luke iv. 23, etc.), the Israelites must have given much attention to medicine from ancient times. The physicians must have understood how to heal wounds and external injuries with bandaging, mollifying with oil (Isa. i. 6; Luke x. 34), balsam (Jer. xli. 11, li. 8), plasters (2 Kings xx. 7), and salves prepared from herbs (Sir. xxxviii. 8; Ex. xxi. 19; 2 Kings viii. 29; Ezek. xxx. 21). The ordinances respecting leprosy also show that the lawgiver was well acquainted with the various kinds of skin eruptions (comp. sect. 114). And not only Moses, but other Israelites also may have acquired much practical knowledge of medicine in Egypt, where the healing art was cultivated from high antiquity. But as to how far the Israelitish physicians advanced in this art, we have not more exact information. From the few scattered hints in the Old and New Testaments, so much only is clear, that internal diseases were also treated (2 Chron. xvi. 12; Luke viii. 43), and that the medicinal springs which Palestine possesses were much used by invalids. It by no means follows from the fact that the superintendence of lepers and the pronouncing of them clean are assigned by the law to the priests, that these occupied themselves chiefly with medicine. The task which the law laid on them has nothing to do with the healing of leprosy. Of the application of charms, there is not a single instance in Scripture"—C. F. Keil, *Manual of Biblical Archaeology*, v. 2, pp. 276-277.—"The surgery of the Talmud includes a knowledge of dislocations of the thigh, contusions of the head, perforation of the lungs and other organs, injuries of the spinal cord and trachea, and fractures of the ribs. Polypus of the nose was considered to be a punishment for past sins. In scatica the patient is advised to rub the hip sixty times with meat-broth. Bleeding was performed by mechanics or barbers. The pathology of the Talmud ascribes diseases to a constitutional vice, to evil influences acting on the body from without, or to the effect of magic. Jaundice is recognized as arising from retention of the bile, dropsy from suppression of the urine. The Talmudists divided dropsy into anasarca, ascites, and tympanites. Rupture and atrophy of the kidneys were held to be always fatal. Hydatids of the liver were more favourably considered. Suppuration of the spinal cord, induration of the lungs, etc., are incurable. Dr Baas says that these are 'views which may have been based on the dissection of (dead) animals, and may be considered the germs of pathological anatomy.' Some critical symptoms are sweating, sneezing, defecation, and dreams, which promise a favourable termination of the disease. Natural remedies, both external and internal, were employed. Magic was also Talmudic. Dispensations were given by the Rabbis to permit sick persons to eat prohibited food. Onions were prescribed for worms; wine and pepper for stomach disorders; goat's milk for difficulty of breathing; emetics in nausea; a mixture of gum and alum for menorrhagia (not a bad prescription); a dog's liver was ordered for the bite of a mad dog. Many drugs, such as assafoetida, are evidently adopted from Greek medicine. The dissection of the bodies of animals provided the Talmudists with their anatomy. It is, however, recorded that Rabbi Ishmael, at the close of the first century, made a skeleton by boiling the body of a prostitute. We find that dissection in the interests of science was permitted by the Talmud. The Rabbis counted 252 bones in the human skeleton."—E. Berdoe, *The Origin and Growth of the Healing Art*, bk. 2, ch. 2.

Greek.—"It is well known that the oldest documents which we possess relative to the practice of Medicine, are the various treatises contained in the Collection which bears the name of Hippocrates. Their great excellence has been acknowledged in all ages, and it has always been a question which has naturally excited literary curiosity, by what steps the art had attained to such perfection at so early a period. . . . It is clearly established that, long before the birth of philosophy, medicine had been zealously and successfully cultivated by the Asclepiadæ, an order of priest-physicians that traced its origin to a mythical personage bearing the distinguished name of Æsculapius. Two of his sons, Podalirius and Machaon, figure in the Homeric poems, not however as priests, but as warriors possessed of surgical skill in the treatment of wounds, for which they are highly complimented by the poet. It was probably some generations after this time (if one may venture a conjecture on a matter partaking very much of the legendary character) that Æsculapius was deified, and that Temples of Health, called 'Asclepia,' presided over by the Asclepiadæ, were erected in various parts of Greece, as receptacles for the sick, to which invalids resorted in those days for the cure of diseases, under the same circumstances as they go to hospitals and spas at the present time. What remedial measures were adopted in these temples we have no means of ascertaining so fully as could be wished, but the following facts, collected from a variety of sources, may be pretty confidently relied upon for their accuracy. In the first place, then, it is well ascertained that a large proportion of these temples were built in the vicinity of thermæ, or medicinal springs, the virtues of which would no doubt contribute greatly to the cure of the sick. At his entrance into the temple, the devotee was subjected to purifications, and made to go through a regular course of bathing, accom-

panied with methodical frictions, resembling the oriental system now well known by the name of shampooing. Fomentations with decoctions of odoriferous herbs were also not forgotten. A total abstinence from food was at first prescribed, but afterwards the patient would no doubt be permitted to partake of the flesh of the animals which were brought to the temples as sacrifices. Every means that could be thought of was used for working upon the imagination of the sick, such as religious ceremonies of an imposing nature, accompanied by music, and whatever else could arouse their senses, conciliate their confidence, and, in certain cases, contribute to their amusement. . . . It is also well known that the Asclepiadæ noted down with great care the symptoms and issue of every case, and that, from such observations, they became in time great adepts in the art of prognosis. . . . The office of priesthood was hereditary in certain families, so that information thus acquired would be transmitted from father to son, and go on accumulating from one generation to another. Whether the Asclepiadæ availed themselves of the great opportunities which they must undoubtedly have had of cultivating human and comparative anatomy, has been much disputed in modern times. . . . It is worthy of remark, that Galen holds Hippocrates to have been a very successful cultivator of anatomy. . . . Of the 'Asclepia' we have mentioned above, it will naturally be supposed that some were in much higher repute than others, either from being possessed of peculiar advantages, or from the prevalence of fashion. In the beginning of the fifth century before the Christian era the temples of Rhodes, Cnidos, and Cos were held in especial favour, and on the extinction of the first of these, another rose up in Italy in its stead. But the temple of Cos was destined to throw the reputation of all the others into the background, by producing among the priests of Æsculapius the individual who, in all after ages, has been distinguished by the name of the Great Hippocrates. . . . That Hippocrates was lineally descended from Æsculapius was generally admitted by his countrymen, and a genealogical table, professing to give a list of the names of his forefathers, up to Æsculapius, has been transmitted to us from remote antiquity. . . . Of the circumstances connected with the life of Hippocrates little is known for certain. . . . Aulus Gellius, . . . in an elaborate disquisition on Greek and Roman chronology, states decidedly that Socrates was contemporary with Hippocrates, but younger than he. Now it is well ascertained that the death of Socrates took place about the year 400 A. C., and as he was then nearly seventy years old, his birth must be dated as happening about the year 470 A. C. . . . It will readily occur to the reader, then, that our author flourished at one of the most memorable epochs in the intellectual development of the human race. . . . From his forefathers he inherited a distinguished situation in one of the most eminent hospitals, or Temples of Health, then in existence, where he must have enjoyed free access to all the treasures of observations collected during many generations, and at the same time would have an opportunity of assisting his own father in the management of the sick. Thus from his youth he must have been familiar with the principles of medicine, both in the abstract and in the con-

crete. . . . Initiated in the theory and first principles of medicine, as now described, Hippocrates no doubt commenced the practice of his art in the Asclepion of Cos, as his forefathers had done before him. Why he afterwards left the place of his nativity, and visited distant regions of the earth, whither the duties of his profession and the calls of humanity invited him, cannot now be satisfactorily determined. . . . According to all the accounts which have come down to us of his life, he spent the latter part of it in Thessaly, and died at Larissa, when far advanced in years. . . . As a medical author the name of Hippocrates stands pre eminently illustrious. . . . Looking upon the animal system as one whole, every part of which conspires and sympathises with all the other parts, he would appear to have regarded disease also as one, and to have referred all its modifications to peculiarities of situation. Whatever may now be thought of his general views on Pathology, all must admit that his mode of prosecuting the cultivation of medicine is in the true spirit of the Inductive Philosophy; all his descriptions of disease are evidently derived from patient observation of its phenomena, and all his rules of practice are clearly based on experience. Of the fallaciousness of experience by itself he was well aware, however. . . . Above all others Hippocrates was strictly the physician of experience and common sense. In short, the basis of his system was a rational experience, and not a blind empiricism, so that the Empirics in after ages had no good grounds for claiming him as belonging to their sect. What he appears to have studied with particular attention is the natural history of diseases, that is to say, their tendencies to a favorable or fatal issue. . . . One of the most distinguishing characteristics, then, of the Hippocratic system of medicine, is the importance attached in it to prognosis, under which was comprehended a complete acquaintance with the previous and present condition of the patient and the tendency of the disease. . . . In the practice of surgery he was a bold operator. He fearlessly, and as we would now think, in some cases unnecessarily, perforated the skull with the trepan and the trephine in injuries of the head. He opened the chest also in empyema and hydrothorax. His extensive practice, and no doubt his great familiarity with the accidents occurring at the public games of his country, must have furnished him with ample opportunities of becoming acquainted with dislocations and fractures of all kinds; and how well he had profited by the opportunities which he thus enjoyed, every page of his treatises 'On Fractures,' and 'On the Articulations,' abundantly testifies."—F. Adams, *Preliminary Discourse (Genuine Works of Hippocrates)*, sect. 1—"The school of the Asclepiadæ has been responsible for certain theories which have been more or less prominent during the earlier historical days. One of these which prevailed throughout the Hippocratic works is that of Coction and Crisis. By the former term is meant thickening or elaboration of humors in the body, which was supposed to be necessary for their elimination in some tangible form. Disease was regarded as an association of phenomena resulting from efforts made by the conservative principles of life to effect a coction, i. e., a combination, of the morbid matter in the economy, it being held that the latter could not be

properly expelled until thus united and prepared so as to form excrementitious material. This elaboration was supposed to be brought about by the vital principles which some called nature (*Phusis*), some spirit (*Psyche*), some breath (*Pneuma*), and some heat (*Thermon*). The gradual climax of morbid phenomena has, since the days of Hippocrates, been commonly known as Crisis. All this was regarded as the announcement of the completion of this union by coction. The day on which it was accomplished was termed 'critical,' as were also the signs which preceded or accompanied it, and for the crisis the physician anxiously watched. Coction having been effected and crisis occurring, it only remained to evacuate the morbid material, which nature sometimes spontaneously accomplished by the critical sweat, urination, or stools; or sometimes the physician had to come to her relief by the administration of diuretics, purgatives, et cetera. The term 'critical period' was given to the number of days necessary for coction, which in its perfection was supposed to be four, the so-called quaternary, while the septenary was also held in high consideration. . . . This doctrine of crisis in disease left an impress upon the medical mind not yet fully eliminated."—Roswell Park, *Lects. on the Hist. of Medicine (in MS.)*.—"Making no pretension . . . to describe the regular medical practice among the Greeks, I shall here, nevertheless, introduce some few particulars more or less connected with it, which may be regarded as characteristic of the age and people. Great were the virtues which they ascribed to the herb alysson, (*biscutella didyma*), which, being pounded and eaten with meat cured hydrophobia. Nay, more, being suspended in the house, it promoted the health of its inhabitants; it protected likewise both man and cattle from enchantment; and, bound in a piece of scarlet flannel round the necks of the latter, it preserved them from all diseases. Coriander-seed, eaten in too great quantity, produced, they thought, a derangement of the intellect. Ointment of saffron had an opposite effect, for the nostrils and heads of lunatics being rubbed therewith they were supposed to receive considerable relief. Melampus the goatherd was reported to have cured the daughters of Prætos of their madness by large doses of black hellebore, which thereafter received from him the name of Melampodium. Sea-onions suspended over the doors preserved from enchantment, as did likewise a branch of rhamnus over doors or windows. A decoction of rosemary and of the leaves and stems of the anemone was administered to nurses to promote the secretion of milk, and a like potion prepared from the leaves of the Cretan dittany was given to women in labour. This herb, in order to preserve its virtues unimpaired, and that it might be the more easily transported to all parts of the country, was preserved in a joint of a ferula or reed. A plaster of incense, Cimolian earth, and oil of roses, was applied to reduce the swelling of the breasts. A medicine prepared from mule's fern, was believed to produce sterility, as were likewise the waters of a certain fountain near Pyrrha, while to those about Thespiæ a contrary effect was attributed, as well as to the wine of Heraclea in Arcadia. The inhabitants of this primitive region drank milk as an aperient in the Spring, because of the medicinal herbs on which the cattle were then supposed to feed. Medicines of

laxative properties were prepared from the juice of the wild cucumber, which were said to retain their virtues for two hundred years, though simples in general were thought to lose their medicinal qualities in less than four. The oriental gum called kankamon was administered in water or honeyed vinegar to fat persons to diminish their obesity and also as a remedy for the toothache. For this latter purpose the gum of the Ethiopian olive was put into the hollow tooth, though more efficacy perhaps was attributed to the root of dittander which they suspended as a charm about the neck. A plaster of the root of the white thorn or iris roots prepared with flour of copper, honey, and great centaury, drew out thorns and arrow heads without pain. An unguent procured from fern was sold to rustics for curing the necks of their cattle galled by the yoke. A decoction of marsh-mallow leaves and wine or honeyed vinegar was administered to persons who had been stung by bees or wasps or other insects; bites and burns were healed by an external application of the leaf smeared with oil, and the powdered roots cast into water caused it to freeze if placed out during the night in the open air; an unguent was prepared with oil from reeds, green or dry, which protected those who anointed themselves with it from the stings of venomous reptiles. Cinnamon unguent, or terebinth and myrtle-berries, boiled in wine, were supposed to be a preservative against the bite of the tarantula or scorpion, as was the pistachio nut against that of serpents. Some persons ate a roasted scorpion to cure its own bite; a powder, moreover, was prepared from sea-crabs supposed to be fatal to this reptile. Vipers were made to contribute their part to the *materia medica*; for, being caught alive, they were enclosed with salt and dried figs in a vase which was then put into a furnace till its contents were reduced to charcoal, which they esteemed a valuable medicine. A considerable quantity of viper's flesh was in the last century imported from Egypt into Venice, to be used in the composition of medicinal treacle. From the flowers of the sneezewort, a sort of snuff appears to have been manufactured, though probably used only in medicines. The ashes of old leather cured burns, galls, and blistered feet. The common remedy when persons had eaten poisonous mushrooms was a dose of nitre exhibited in vinegar and water; with water it was esteemed a cure for the sting of a burncow, and with benzoin it operated as an antidote against the poison of bulls' blood."—J. A. St. John, *The Hellenes*, bk. 6, ch. 6 (v. 3).

The Hippocratic Oath.—"Medical societies or schools seem to have been as ancient as Hippocrates. The Hippocratic oath, as it is called, has been preserved, and is one of the greatest curiosities we have received from antiquity: 'I swear by Apollo the physician, by *Æsculapius*, by Hygeia, by Panacea, and by all gods and goddesses, that I will fulfil religiously, according to the best of my power and judgment, the solemn vow which I now make. I will honour as my father the master who taught me the art of medicine; his children I will consider as my brothers, and teach them my profession without fee or reward. I will admit to my lectures and discourses my own sons, my master's sons, and those pupils who have taken the medical oath; but no one else. I will prescribe such medicines

as may be best suited to the cases of my patients, according to the best of my judgment; and no temptation shall ever induce me to administer poison. I will religiously maintain the purity of my character and the honour of my art. I will not perform the operation of lithotomy, but leave it to those to whose calling it belongs. Into whatever house I enter, I will enter it with the sole view of relieving the sick, and conduct myself with propriety towards the women of the family. If during my attendance I happen to hear of anything that should not be revealed, I will keep it a profound secret. If I observe this oath, may I have success in this life, and may I obtain general esteem after it; if I break it, may the contrary be my lot."—*Ancient Physic and Physicians* (Dublin Univ. Mag., April, 1856).

1st Century.—Greek physicians in Rome.—Pliny's Picture.—Pliny's account of the Greek physicians in Rome in his time (first century) is not flattering to the profession. He says: "For the cure of King Antiochus—to give our first illustration of the profits realized by the medical art—Erasistratus received from his son, King Ptolemæus, the sum of one hundred talents. . . . I pass over in silence many physicians of the very highest celebrity, the Cassii, for instance, the Calpetani, the Arruntii, and the Rubrii, men who received fees yearly from the great, amounting to no less than 250,000 sesterces. As for Q. Stertinius, he thought that he conferred an obligation upon the emperors in being content with 500,000 sesterces per annum; and indeed he proved, by an enumeration of the several houses, that a city practice would bring him in a yearly income of not less than 600,000 sesterces. Fully equal to this was the sum lavished upon his brother by Claudius Cæsar; and the two brothers, although they had drawn largely upon their fortunes in beautifying the public buildings at Neapolis, left to their heirs no less than 30,000,000 of sesterces! such an estate as no physician but Arruntius had till then possessed. Next in succession arose Vettius Valens, rendered so notorious by his adulterous connection with Messalina, the wife of Claudius Cæsar, and equally celebrated as a professor of eloquence. When established in public favour, he became the founder of a new sect. It was in the same age, too, during the reign of the Emperor Nero, that the destinies of the medical art passed into the hands of Thessalus, a man who swept away all the precepts of his predecessors, and declaimed with a sort of frenzy against the physicians of every age; but with what discretion and in what spirit, we may abundantly conclude from a single trait presented by his character—upon his tomb, which is still to be seen on the Appian Way, he had his name inscribed as the 'Iatronices'—the 'Conqueror of the Physicians.' No stage-player, no driver of a three-horse chariot, had a greater throng attending him when he appeared in public: but he was at last eclipsed in credit by Crinas, a native of Massilia, who, to wear an appearance of greater discreetness and more devoutness, united in himself the pursuit of two sciences, and prescribed diets to his patients in accordance with the movements of the heavenly bodies, as indicated by the almanacks of the mathematicians, taking observations himself of the various times and seasons. It was but recently that he died, leaving 10,000,000 of sesterces, after having expended hardly a less

sum upon building the walls of his native place and of other towns. It was while these men were ruling our destinies, that all at once, Charisma, a native also of Massilia, took the City by surprise. Not content with condemning the practice of preceding physicians, he proscribed the use of warm baths as well, and persuaded people, in the very depth of winter even, to immerse themselves in cold water. His patients he used to plunge into large vessels filled with cold water, and it was a common thing to see aged men of consular rank make it a matter of parade to freeze themselves; a method of treatment, in favour of which Annæus Seneca gives his personal testimony, in writings still extant. There can be no doubt whatever, that all these men, in the pursuit of celebrity by the introduction of some novelty or other, made purchase of it at the downright expense of human life. Hence those woeful discussions, those consultations at the bedside of the patient, where no one thinks fit to be of the same opinion as another, lest he may have the appearance of being subordinate to another; hence, too, that ominous inscription to be read upon a tomb, 'It was the multitude of physicians that killed me.' The medical art, so often modified and renewed as it has been, is still on the change from day to day, and still are we impelled onwards by the puffs which emanate from the ingenuity of the Greeks. . . . Cassius Hemina, one of our most ancient writers, says that the first physician that visited Rome was Archagathus, the son of Lysanias, who came over from Peloponnesus, in the year of the City 535, L. Æmilius and M. Livius being consuls. He states also, that the right of free citizenship was granted him, and that he had a shop provided for his practice at the public expense in the Acilian Cross-way; that from his practice he received the name of 'Vulnerarius'; that on his arrival he was greatly welcomed at first, but that soon afterwards, from the cruelty displayed by him in cutting and searing his patients, he acquired the new name of 'Carnifex,' and brought his art and physicians in general into considerable disrepute. That such was the fact, we may readily understand from the words of M. Cato, a man whose authority stands so high of itself, that but little weight is added to it by the triumph which he gained, and the Censorship which he held. I shall, therefore, give his own words in reference to this subject. 'Concerning those Greeks, son Marcus, I will speak to you more at length on the befitting occasion. I will show you the results of my own experience at Athens, and that, while it is a good plan to dip into their literature, it is not worth while to make a thorough acquaintance with it. They are a most iniquitous and intractable race, and you may take my word as the word of a prophet, when I tell you, that whenever that nation shall bestow its literature upon Rome it will mar everything; and that all the sooner, if it sends its physicians among us. They have conspired among themselves to murder all barbarians with their medicine; a profession which they exercise for lucre, in order that they may win our confidence, and dispatch us all the more easily. They are in the common habit, too, of calling us barbarians, and stigmatize us beyond all other nations, by giving us the abominable appellation of Opici. I forbid you to have anything to do with physicians.' Cato, who wrote to this

effect, died in his eighty-fifth year, in the year of the City 605; so that no one is to suppose that he had not sufficient time to form his experience, either with reference to the duration of the republic, or the length of his own life. Well then—are we to conclude that he has stamped with condemnation a thing that in itself is most useful? Far from it, by Hercules! . . . Medicine is the only one of the arts of Greece, that, lucrative as it is, the Roman gravity has hitherto refused to cultivate. It is but very few of our fellow-citizens that have even attempted it.”—Pliny, *Natural Hist.* (Bohn's trans.), bk. 29, ch. 3–8 (v. 5).

2d Century.—Galen and the development of Anatomy and Pathology.—“In the earliest conceptions which men entertained of their power of moving their own members, they probably had no thought of any mechanism or organization by which this was effected. The foot and the hand, no less than the head, were seen to be endowed with life; and this pervading life seemed sufficiently to explain the power of motion in each part of the frame, without its being held necessary to seek out a special seat of the will, or instruments by which its impulses were made effective. But the slightest inspection of dissected animals showed that their limbs were formed of a curious and complex collection of cordage, and communications of various kinds, running along and connecting the bones of the skeleton. These cords and communications we now distinguish as muscles, nerves, veins, arteries, &c.; and among these, we assign to the muscles the office of moving the parts to which they are attached, as cords move the parts of a machine. Though this action of the muscles on the bones may now appear very obvious, it was, probably, not at first discerned. It is observed that Homer, who describes the wounds which are inflicted in his battles with so much apparent anatomical precision, nowhere employs the word muscle. And even Hippocrates of Cos, the most celebrated physician of antiquity, is held to have had no distinct conception of such an organ. . . . Nor do we find much more distinctness on this subject even in Aristotle, a generation or two later. . . . He is held to have really had the merit of discovering the nerves of sensation, which he calls the ‘canals of the brain’ . . . , but the analysis of the mechanism of motion is left by him almost untouched. . . . His immediate predecessors were far from remedying the deficiencies of his doctrines. Those who professed to study physiology and medicine were, for the most part, studious only to frame some general system of abstract principles, which might give an appearance of connexion and profundity to their tenets. In this manner the successors of Hippocrates became a medical school, of great note in its day, designated as the Dogmatic school; in opposition to which arose an Empiric sect, who professed to deduce their modes of cure, not from theoretical dogmas, but from experience. These rival parties prevailed principally in Asia Minor and Egypt, during the time of Alexander's successors,—a period rich in names, but poor in discoveries; and we find no clear evidence of any decided advance in anatomy. . . . The victories of Lucullus and Pompeius, in Greece and Asia, made the Romans acquainted with the Greek philosophy; and the consequence soon was, that

shoals of philosophers, rhetoricians, poets, and physicians streamed from Greece, Asia Minor, and Egypt, to Rome and Italy, to traffic their knowledge and their arts for Roman wealth. Among these was one person whose name makes a great figure in the history of medicine, Asclepiades of Prusa in Bithynia. This man appears to have been a quack, with the usual endowments of his class. . . . He would not, on such accounts, deserve a place in the history of science, but that he became the founder of a new school, the Methodic, which professed to hold itself separate both from the Dogmatics and the Empirics. I have noticed these schools of medicine, because, though I am not able to state distinctly their respective merits in the cultivation of anatomy, a great progress in that science was undoubtedly made during their domination, of which the praise must, I conceive, be in some way divided among them. The amount of this progress we are able to estimate, when we come to the works of Galen, who flourished under the Antonines, and died about A. D. 203. The following passage from his works will show that this progress in knowledge was not made without the usual condition of laborious and careful experiment, while it implies the curious fact of such experiment being conducted by means of family tradition and instruction, so as to give rise to a caste of dissectors. In the opening of his Second Book on Anatomical Manipulations, he speaks thus of his predecessors: ‘I do not blame the ancients, who did not write books on anatomical manipulation; though I praise Marinus, who did. For it was superfluous for them to compose such records for themselves or others, while they were, from their childhood, exercised by their parents in dissecting, just as familiarly as in writing and reading; so that there was no more fear of their forgetting their anatomy, than of forgetting their alphabet. But when grown men, as well as children, were taught, this thorough discipline fell off; and, the art being carried out of the family of the Asclepiads, and declining by repeated transmission, books became necessary for the student.’ That the general structure of the animal frame, as composed of bones and muscles, was known with great accuracy before the time of Galen, is manifest from the nature of the mistakes and deficiencies of his predecessors which he finds it necessary to notice. . . . Galen was from the first highly esteemed as an anatomist. He was originally of Pergamus; and after receiving the instructions of many medical and philosophical professors, and especially of those of Alexandria, which was then the metropolis of the learned and scientific world, he came to Rome, where his reputation was soon so great as to excite the envy and hatred of the Roman physicians. The emperors Marcus Aurelius and Lucius Verus would have retained him near them; but he preferred pursuing his travels, directed principally by curiosity. When he died, he left behind him numerous works, all of them of great value for the light they throw on the history of anatomy and medicine; and these were for a long period the storehouse of all the most important anatomical knowledge which the world possessed. In the time of intellectual barrenness and servility, among the Arabians and the Europeans of the dark ages, the writings of Galen had almost unquestioned authority; and it was only by an

uncommon effort of independent thinking that Abdollatif ventured to assert, that even Galen's assertions must give way to the evidence of the senses. In more modern times, when Vesalius, in the sixteenth century, accused Galen of mistakes, he drew upon himself the hostility of the whole body of physicians."—W. Whewell, *History of the Inductive Sciences*, bk. 17, ch. 1, sect. 1 (v. 2).—"Galen strongly denied being attached to any of the sects of his day, and regarded as slaves those who took the title of Hippocratists, Praxagoreans, or Herophilists, and so on. Nevertheless his predilection in favor of the Hippocratic writings is well marked, for he explains, comments upon them, and amplifies them at length, refutes the objections of their adversaries and gives them the highest place. He says, 'No one before me has given the true method of treating disease; Hippocrates, I confess, has heretofore shown the path, but as he was the first to enter it he was not able to go as far as he wished. . . . He has not made all the necessary distinction, and is often obscure, as is usually the case with ancients when they attempt to be concise. He says very little of complicated diseases; in a word, he has only sketched what another was to complete; he has opened the path, but has left it for a successor to enlarge and make it plain.' This implies how he regarded himself as the successor of Hippocrates, and how little weight he attached to the labors of others. He held that there were three sorts of principles in man—spirits, humors, and solids. Throughout his metaphysical speculations Galen reproduces and amplifies the Hippocratic dogmatism. Between perfect health and disease there were, he thought, eight kinds of temperaments or imperfect mixtures compatible with the exercise of the functions of life. With Plato and Aristotle he thought the human soul to be composed of three faculties or parts, the vegetative, residing in the liver; the irascible, having its seat in the heart, and the rational, which resided in the brain. He divided diseases of the solids of the body into what he called distempers; he distinguished between the continued and intermittent fevers, regarding the quotidian as being caused by phlegm, the tertian as due to yellow bile, and the quartan due to atrabile. In the doctrine of coction, crises, and critical days, he agreed with Hippocrates; with him he also agreed in the positive statement that diseases are cured by their contraries."—Roswell Park, *Lect. on the Hist. of Medicine* (in MS.).

7-11th Centuries.—Medical Art of the Arabs.—"It probably sounds paradoxical (though it is not) to affirm that, throughout the first half of the Middle Ages, science made its home chiefly with the Semites and Græco-Romans (its founders), while, in opposition to the original relations, faith and its outgrowths alone were fostered by the Germans. In the sterile wastes of the desert the Arabians constructed a verdant oasis of science, in lands to-day the home once more of absolute or partial barbarism. A genuine meteor of civilization were these Arabians. . . . The Arabians built their medicine upon the principles and theories of the Greeks (whose medical writings were studied and copied mostly in translations only), and especially upon those of Galen, in such a way, that, on the whole, they added to it very little matter of their own, save numerous subtle definitions and amplifications. But Indian

medical views and works, as well as those of other earlier Asiatic peoples (e. g., the Chaldeans), exercised demonstrably, but in a subordinate degree, an influence upon Arabian medicine. The Arabians interwove too into their medical views various philosophical theorems, especially those of Aristotle, already corrupted by the Alexandrians and still further falsified by themselves with portions of the Neo-Platonic philosophy; and finally they added thereto a goodly share of the absurdities of astrology and alchemy. In deed it is nowadays considered proven that they even made use of ancient Egyptian medical works, e. g., the papyrus Ebers. Thus the medicine of the Arabians, like Grecian medicine its parent, did not greatly surpass the grade of development of mere medical philosophy, and, so far as regards its intrinsic worth, it stands entirely upon Grecian foundations. . . . Yet they constantly advanced novelties in the sciences subsidiary to medicine, materia medica and pharmacy, from the latter of which chemistry, pharmacies and the profession of the apothecary were developed. . . . The mode of transfer of Greek medicine to the Arabians was probably as follows: The inhabitants of the neighboring parts of Asia, including both the Persians and Arabians, as the result of multifarious business connections with Alexandria, came, even at an early date, in contact with Grecian science, and by degrees a permanent alliance was formed with it. In a more evident way the same result was accomplished by the Jewish schools in Asia, the great majority of which owed their foundation to Alexandria. Such schools were established at Nisibis, at Nahaardea in Mesopotamia, at Mathue Mechasja on the Euphrates, at Sura, &c., and their period of prime falls in the 5th century. The influence of the Nestorian universities was especially favorable and permanent, particularly the school under Greek management founded at Edessa, in Mesopotamia, where Stephen of Edessa, the reputed father of Alexander of Tralles, taught (A. D. 530). Still more influential in the transfer of Grecian science to the Arabians was the banishment of the 'heathen' philosophers of the last so-called Platonic school of Athens, by the 'Christian' despot Justinian I. (529). These philosophers were well received at the court of the infidel Chosroës, and in return manifested their gratitude by the propagation of Grecian science. . . . From all these causes it resulted that, even as early as the time of Mohammed (571-632), physicians educated in the Grecian doctrines lived among the Arabians. . . . Arabian culture (and of course Arabian medicine) reached its zenith at the period of the greatest power and greatest wealth of the Caliphate in the 9th and 10th centuries. At that time intellectual life was rooted in the schools of the mosques, i. e., the Arabian universities, which the great caliphs were zealous in founding. Such Arabian universities arose and existed in the progress of time (even as late as the 14th century) at Bagdad, Bassora, Cufa, Samarcand, Ispahan, Damascus, Bokhara, Firuzabad and Khurdistan, and under the scholastic Fatimides (909-1171) in Alexandria. Under the Ommiyades (755-1031), after the settlement of the Arabians in Spain in the beginning of the 8th century, were founded the famous universities of Cordova (possessing in the 10th century a library of 250,000 volumes), Seville, Toledo, Almeria and Murcia under the

three caliphs named Abderrahman and Al Hakem. Less important were the universities of Granada and Valencia, and least important of all, those founded by the Edrisi dynasty (800-986) in the provinces of Tunis, Fez and Morocco. In spite of all these institutions the Arabians possessed no talent for productive research; still less, like the ancient Semites, did they create any arts, save poesy and architecture. Their whole civilization bore the stamp of its foreign origin. . . . 'The Prince of Physicians' (el Sheik el Reis—he was also a poet) was the title given by the Arabians to Abu Ali el Hossein ebn Abdallah ebn Sina (Ebn Sina, Avicenna), 980-1037, in recognition of his great erudition, of which the chief evidences are stored in his 'Canon.' This work, though it contains substantially merely the conclusions of the Greeks, was the text-book and law of the healing art, even as late as the first century of modern times."—J. H. Baas, *Outlines of the History of Medicine*, pp. 216-229.—"The Saracens commenced the application of chemistry, both to the theory and practice of medicine, in the explanation of the functions of the human body and in the cure of its diseases. Nor was their surgery behind their medicine. Albucasis, of Cordova, shrinks not from the performance of the most formidable operations in his own and in the obstetrical art; the actual cautery and the knife are used without hesitation. He has left us ample descriptions of the surgical instruments then employed; and from him we learn that, in operations on females in which considerations of delicacy intervened, the services of properly instructed women were secured. How different was all this from the state of things in Europe: the Christian peasant, fever-stricken or overtaken by accident, hied to the nearest saint-shrine and expected a miracle; the Spanish Moor relied on the prescription or lancet of his physician, or the bandage and knife of his surgeon."—J. W. Draper, *Hist. of the Intellectual Development of Europe*, v. 2, ch. 2.—"The accession of Gehwer to the throne of Mussulman Spain, early in the eleventh century, was marked by the promulgation of regulations so judiciously planned, touching medical science and its practice, that he deserves the highest commendation for the unwavering zeal with which he supervised this important branch of learning taught in the metropolis. Those evils which the provinces had suffered previous to his rule, through the practice of medicine by debased empirics, were quickly removed by this sagacious Caliph. Upon the publication of his rescripts, such medical charlatans or ambulatory physicians as boldly announced themselves to be medici, without a knowledge of the science, were ignominiously expelled from the provincial towns. He decreed that a college of skilled surgeons should be forthwith organized, for the single specified function of rigidly examining into the assumed qualifications of applicants for licenses to exercise the curative art in municipal or rural departments, or sought professional employment as physicians in the numerous hospitals upon the Mahometan domains."—G. F. Fort, *Medical Economy during the Middle Ages*, ch. 17.—"Anatomy and physiology, far from making any conquests under Arabian rule, followed on the contrary a retrograde movement. As those physicians never devoted themselves to dissections, they were under the necessity of conforming entirely to the accounts of Galen.

. . . Pathology was enriched in the Arabian writings by some new observations. . . . The physicians of this nation were the first . . . who began to distinguish eruptive fevers by the exterior characters of the eruption, while the Greeks paid but little attention to these signs. Therapeutics made also some interesting acquisitions under the Arab physicians. It owes to them, among other things, the introduction of mild purgatives, such as cassia, senna, and manna, which replaced advantageously, in many cases, the drastics employed by the ancients; it is indebted to them, also, for several chemical and pharmaceutical improvements, as the confection of syrups, tinctures, and distilled waters, which are very frequently and usefully employed. Finally, external therapeutics, or surgery, received some minor additions, such as pomades, plasters, and new ointments; but these additions were very far from compensating for the considerable losses which it suffered by their abandoning a multitude of operations in use among the Greeks."—P. V. Renouard, *History of Medicine*, p. 267.

12-17th Centuries.—Medieval Medicine.—"The difficulties under which medical science laboured may be estimated from the fact that dissection was forbidden by the clergy of the Middle Ages, on the ground that it was impious to mutilate a form made in the image of God. We do not find this pious objection interfering with such mutilation when effected by means of the rack and the wheel and such other clerical rather than medical instruments. But in the reign of Philip the Second of Spain a famous Spanish doctor was actually condemned by the Inquisition to be burnt for having performed a surgical operation, and it was only by royal favour that he was permitted instead to expiate his crime by a pilgrimage to the Holy Land, where he died in poverty and exile. This being the attitude of the all-powerful Church towards medical progress, it is not surprising that medical science should have stagnated, and that Galen and Dioscorides were permitted to lay down the law in the sixteenth century as they had done since the beginning of the Christian era. Some light is thrown upon the state of things herefrom resulting by a work translated from the German in the year 1561, and entitled 'A most excellent and perfecte homish apothecarye or physicke booke, for all the grefes and diseases of the bodye.' The first chapter is 'Concerning the Head and his partes.' 'Galen sayth, the head is divided into foure partes' in the fore part hath blood the dominion; Colera in the ryght syde, Melancholy in the left syde, and Flegma beareth rule in the hindermost part. If the head doth ake so sore by reason of a runninge that he cannot snoffe hys nose, bath hys fete in a depe tub untill the knees and give him this medicine . . . which riseth into hys head and dryeth hys moyst braynes. Galen sayth He that hath payne in the hindermost part of hys head, the same must be let blood under the chynne, specially on the right side; also were it good ofte to burn the heyre of a man before hys nose. The braynes are greved many wayes; many there are whom the head whyrleth so sore that he thinketh the earth turneth upsye downe: Cummin refraineth the whyrling, comforteth the braynes and maketh them to growe agayne; or he may take the braynes of a hogge, rost the

same upon a grede yron and cut slices thereof and lay to the greved parts.' This doctrine of like helping like was of universal application, and in medical works of the Middle Ages we meet constantly with such prescriptions as these:—'Take the right eye of a Frogg, lap it in a peece of russet cloth and hang it about the neck; it cureth the right eye if it bee enflamed or bleared. And if the left eye be greved, do the like by the left eye of the said Frogg.' Again—'The skin of a Raven's heel is good against the gout, but the right heel skin must be laid upon the right foot if that be gouty, and the left upon the left. . . . If you would have a man become bold or impudent let him carry about him the skin or eyes of a Lion or a Cock, and he will be fearless of his enemies, nay, he will be very terrible unto them. If you would have him talkative, give him tongues, and seek out those of water frogs and ducks and such creatures notorious for their continuall noise making.' On the same principle we find it prescribed as a cure for the quartane ague to lay the fourth book of Homer's Iliad under the patient's head; a remedy which had at least the negative merit of not being nauseous. . . . For weak eyes the patient is to 'take the tounge of a foxe, and hange the same about his necke, and so long it hangeth there his sight shall not wax feeble, as sayth Pliny.' The hanging of such amulets round the neck was very frequently prescribed, and the efficacy of them is a thing curiously well attested. Elias Ashmole in his diary for 1681 has entered the following—'I tooke this morning a good dose of clixir, and hung three spiders about my neck, and they drove my ague away. Deo gratias!' A baked toad hung in a silk bag about the neck was also held in high esteem, as was a toad, either alive or dried, laid upon the back of the neck as a means of stopping a bleeding at the nose; and again, 'either frogg or toade, the nails whereof have been clipped, hanged about one that is sick of quartane ague, riddeth away the disease forever, as sayth Pliny.' We have even a striking instance of the benefit derived from an amulet by a horse, who could not be suspected of having helped forward the cure by the strength of his faith in it. 'The root of cut Malowe hanged about the neck driveth away blemishes of the eyen, whether it be in a mau or a horse, as I Jerome of Brunswieg, have seene myselfe. I have myselfe done it to a blind horse that I bought for X crounes, and was sold again of XL crounes'—a trick distinctly worth knowing."—E. A. King, *Medieval Medicine (Nineteenth Century, July 1893)*.—"If we survey the social and political state of Europe from the twelfth to the sixteenth century in its relation to the development of medical art, our attention is at once arrested by Italy, which at this period was far ahead of the rest of the world. Taking the number of universities as an index of civilization, we find that, before the year 1500, there were sixteen in Italy,—while in France there were but six; in Germany, including Hungary, Bohemia, Bavaria, &c., there were eight; and in Britain, two; making sixteen in all,—the exact number which existed in Italy alone. The Italian Universities were, likewise, no less superior in number than in fame to those of the north. . . . In many of the Italian republics, during the twelfth, thirteenth, and fourteenth centuries, the power was chiefly in the hands of the middle

classes; and it is probable that the physicians occupied a high and influential position among them. Galvanis Flamma describes Milan in 1288, as having a population of 200,000, among whom were 600 notaries, 200 physicians, 80 schoolmasters, and fifty transcribers of manuscripts or books. Milan was about this period at a pitch of glory which has not been equalled since the Greek republics."—J. R. Russell, *History and Heroes of the Art of Medicine*, ch. 5.—"Three schools, as early as 1158, had a reputation which extended throughout the whole of Europe: Paris for theological studies, Bologna for Roman or civil law, and Salerno as the chief medical school of the west."—G. F. Fort, *Medical Economy during the Middle Ages*, ch. 24.—"In 1215 Pope Innocent III. fulminated an anathema specially directed against surgery, by ordaining, that as the church abhorred all cruel or sanguinary practices, no priest should be permitted to follow surgery, or to perform any operations in which either instruments of steel or fire were employed; and that they should refuse their benediction to all those who professed and pursued it. . . . The saints have proved sad enemies to the doctors. Miraculous cures are attested by monks, abbots, bishops, popes, and consecrated saints. . . . Pilgrimages and visits to holy shrines have usurped the place of medicine, and, as in many cases at our own watering places, by air and exercise, have unquestionably effected what the employment of regular professional aid had been unable to accomplish. St. Dominic, St. Bellinus, and St. Vitus have been greatly renowned in the cure of diseases in general; the latter particularly, who takes both poisons and madness of all kinds under his special protection. Melton says 'the saints of the Romanists have usurped the place of the zodiacal constellations in their governance of the parts of man's body, and that "for every limbe they have a saint." Thus St. Otilia keeps the head instead of Arctus; St. Blasius is appointed to governe the necke instead of Taurus; St. Lawrence keeps the backe and shoulders instead of Gemini, Cancer, and Leo; St. Erasmus rules the belly with the entrayles, in the place of Libra and Scorpius; in the stead of Sagittarius, Capricornus, Aquarius, and Pisces, the holy church of Rome hath elected St. Burgarde, St. Rochus, St. Quirinus, St. John, and many others, which governe the thighes, feet, shinnes, and knees.' This supposed influence of the Romish saints is more minutely exhibited, according to Hone, in two very old prints, from engravings on wood, in the collection of the British Museum. Right hand: the top joint of the thumb is dedicated to God, the second joint to the Virgin; the top joint of the fore finger to St. Barnabas, the second joint to St. John, the third to St. Paul; the top joint of the second finger to Simon Cleophas, the second joint to Tathideo, the third to Joseph; the top joint of the third finger to Zaccheus, the second to Stephen, the third to the evangelist Luke; the top joint of the little finger to Leatus, the second to Mark, the third to Nicodemus. Left hand: the top joint of the thumb is dedicated to Christ, the second joint to the Virgin; the top joint of the fore-finger to St. James, the second to St. John the Evangelist, the third to St. Peter; the first joint of the second finger to St. Simon, the second joint to St. Matthew, the third to St. James the Great; the top joint of the third

finger to St. Jude, the second joint to St. Bartholomew, the third to St. Andrew; the top joint of the little finger to St. Matthias, the second to St. Thomas, the third joint to St. Philip. . . . "The credulity of mankind has never been more strongly displayed than in the general belief afforded to the authenticity of remarkable cures of diseases said to have been effected by the imposition of royal hands. The practice seems to have originated in an opinion that there is something sacred or divine attaching either to the sovereign or his functions. . . . The practice appears to be one of English growth, commencing with Edward the Confessor, and descending only to foreign potentates who could show an alliance with the royal family of England. The kings of France, however, claimed the right to dispense the Gift of Healing, and it was certainly exercised by Philip the First; but the French historians say that he was deprived of the power on account of the irregularity of his life. Laurentius, first physician to Henry IV, of France, who is indignant at the attempt made to derive its origin from Edward the Confessor, asserts the power to have commenced with Clovis I, A. D. 481, and says that Louis I, A. D. 814, added to the ceremonial of touching, the sign of the cross. Mezeray also says, that St. Louis, through humility, first added the sign of the cross in touching for the king's evil. . . . If credit is to be given to a statement . . . by William of Malmesbury, with respect to Edward the Confessor, we must admit that in England, for a period of nearly 700 years, the practice of the royal touch was exercised in a greater or lesser degree, as it extended to the reign of Queen Anne. It must not however be supposed that historical documents are extant to prove a regular continuance of the practice during this time. No accounts whatever of the first four Norman kings attempting to cure the complaint are to be found. In the reign of William III, it was not on any occasion exercised. He manifested more sense than his predecessors, for he withheld from employing the royal touch for the cure of scrofula; and Rapin says, that he was so persuaded he should do no injury to persons afflicted with this distemper by not touching them, that he refrained from it all his reign. Queen Elizabeth was also averse to the practice, yet she extensively performed it. It flourished most in the time of Charles II, particularly after his restoration, and a public register of cases was kept at Whitehall, the principal scene of its operation."—T. J. Pettigrew, *Superstitions connected with the History and Practice of Medicine and Surgery*, pp. 34-37, and 117-121.

16th Century.—Paracelsus.—Paracelsus, of whose many names this one stands alone in history to represent him, was an extraordinary person, born in Switzerland, in 1493. He died in 1541. "His character has been very variously estimated. The obstructives of his own age and many hasty judges since have pronounced him a quack. This is simply ridiculous. As a chemist, he is considered to have been the discoverer of zinc, and perhaps of bismuth. He was acquainted with hydrogen, muriatic, and sulphurous gases. He distinguished alum from the vitriols; remarking that the former contained an earth, and the latter metals. He perceived the part played by the atmosphere in combustion, and recognized the analogy between combustion and

respiration. He saw that in the organic system chemical processes are constantly going on. Thus, to him is due the fundamental idea from which have sprung the chemico-physiological researches of Liebig, Mulder, Boussingault, and others. By using in medicine, not crude vegetables, but their active principles, he opened the way to the discovery of the proximate principles of vegetables, organic alkalis, and the like. But perhaps the greatest service he rendered to chemistry, was by declaring it an essential part of medical education, and by showing that its true practical application lay not in gold-making, but in pharmacy and the industrial arts. In medicine he scouted the fearfully complex electuaries and mixtures of the Galenists and the Arabian polypharmacists, recommending simpler and more active preparations. He showed that the idea of poison is merely relative and knew that poisons in suitable doses may be employed in medicine. He prescribed tin as a remedy for intestinal worms, mercury as an anti-syphilitic, and lead in the diseases of the skin. He also used preparations of antimony, arsenic, and iron. He employed sulphuric acid in the treatment of saturnine affections. The astonishing cures which he undoubtedly performed were, however, due not so much to his peculiar medicines, as to his eminent sagacity and insight. He showed the importance of a chemical examination of urine for the diagnosis of disease."—J. W. Slater, *Paracelsus* (*Imperial Dict. of Univ. Biog.*).

16th Century.—The first English College of Physicians.—"The modern doctor dates only from the reign of Henry VIII., when the College of Physicians in England was founded as a body corporate by letters patent in the tenth year of the reign. This grant was in response to a petition from a few of the most notable members of the profession resident in London, who were perhaps moved by both a laudable zeal in the interests of science, and a compassion for the sufferings of the subjects of astrological and toxicological experiments. The charter thus obtained, though probably drafted by the promoters themselves, was found to be so inadequately worded and expressed, that it became necessary to obtain powers to amend it by Act of Parliament. Among these early members were Linacre, Wotton, and others, famous scholars beyond doubt, though possibly but indifferent practitioners. In fact, we are constantly struck throughout the early history of the profession by the frequent occurrence of names associated with almost every other branch of study than that strictly appertaining to the art of medicine. We have naturalists, magneticians, astronomers, mathematicians, logicians, and classical scholars, but scarce one who accomplished anything worthy to be recorded in the annals of medical science. Indeed it is difficult to conceive any useful object that could have been attained by the existence of the College as a professional licensing body, other than the pecuniary interests of the orthodox. . . . It is most significant as to the social degradation of the science of medicine, that most of the notorious empirics of the latter half of the sixteenth century were both highly recommended and strenuously supported in their resistance to the proctors of orthodoxy by some of the greatest names of the age. These self-deluded victims of quackery were not indeed adverse in theory to the pretensions of more

regular members of the profession. They would patronize the Court physicians, or, if favorites of the Crown, they might even submit to the Sovereign's recommendation in that behalf; but none the less their family doctor was in far too many cases some outlandish professor of occult arts, retained in learned state on the premises, who undertook the speedy, not to say miraculous, cure of his patron's particular disease by all the charms of the Cabala."—H. Hall, *The Early Medicus (Merry England; also in Eclectic Magazine, June, 1884)*.

16th Century.—The System of Van Helmont.—John Baptist van Helmont "was born at Brussels in the year 1577. . . . His parents were noble, and he was heir to great possessions. He pursued in Louvain the usual course of scholastic philosophy. . . . Becoming accidentally acquainted with the writings of Thomas à Kempis and John Tauler, he from that day adopted what goes by the vague term of mysticism. That is, thoroughly convinced that there was a spiritual world in intimate and eternal union with the spirit of man; that this spiritual world was revealed to that human soul which submitted to receive it in humility; and that the doctrines of Christianity were not to be looked upon as a system of philosophy, but as a rule of life, he resolved to follow them to the letter. The consequence of this resolution was, that he devoted himself to the art of medicine, in imitation of the Great Healer of the body as well as of the soul; and as the prejudices of his time and country made his rank and wealth an obstacle to his entrance into the medical profession, he made over all his property, with its honours, to his sister; that, 'laying aside every weight, he might run the race that was set before him.' He entered on his new studies with all the zeal of his character, and very soon had so completely mastered the writings of Hippocrates and Galen, as to excite the surprise of his contemporaries. But although styled a dreamer, and having a mind easily moved to belief in spiritual manifestation, he was not of a credulous nature in regard to matters belonging to the senses. And as he believed that Christianity was to be practised, and to be found true by the test of experiment, so he believed that the doctrines of Hippocrates and of Galen were to be subjected to a similar trial. An opportunity soon occurred to himself. He caught the itch and turned to Galen for its cure. Galen attributes this disease to overheated bile and sour phlegm, and says that it is to be cured by purgatives. Van Helmont, with the implicit faith of his simple nature, procured the prescribed medicines, and took them as ordered by Galen. Alas, no cure of the itch followed, but great exhaustion of his whole body: so Galen was not to be trusted. This was a serious discovery; for if he could not trust Galen, by whom the whole medical world swore, to whom was he to turn? . . . Van Helmont resolved to work out for himself a solution of the great problem to which he had devoted his life. Van Helmont's system may be called spiritual vitalism. The primary cause of all organization was Archæus. By Archæus, a man is much more nearly allied, he says, to the world of spirits and the Father of spirits than to the external world. Archæus is the creative spirit which, working upon the raw material of water or fluidity, by means of 'a ferment' ex-

cites all the endless actions which result in the growth and nourishment of the body. Thus, digestion is neither a chemical nor a mechanical operation; nor is it, as was then supposed, the effects of heat, for it is arrested instead of aided by fever, and goes on in perfection in fishes and cold-blooded animals; but, on the command of Archæus, an acid is generated in the stomach, which dissolves the food. This is the first digestion. The second consists in the neutralization of this acid by the bile out of the gall bladder. The third takes place in the vessels of the mesentery. The fourth goes on in the heart, by the action of the vital spirits. The fifth consists in the conversion of the arterial blood into vital spirits, chiefly in the brain. The sixth consists of the preparation of nourishment in the laboratory of each organ, during which operation Archæus, present everywhere, is itself regenerated, and superintends the momentary regeneration of the whole frame. If for digestion we substitute the word nutrition, we cannot fail to be struck by the near approach to accuracy in this description of the succession of processes by which it is brought about. Van Helmont's pathology was quite consistent with his physiology. As life and all vital action depended upon Archæus, so the perturbation of Archæus gave rise to fevers, and derangements of the blood and secretions. Thus, gout was a disease not confined to the part in which it showed itself, but was the result of Archæus. It will be seen that by this theory the entire system of Galen was unsuited. There is no place for the elements and the humours."—J. R. Russell, *History and Heroes of the Art of Medicine, ch. 8*.

17th Century.—Harvey and the Discovery of the Circulation of the Blood.—William Harvey, "physician and discoverer of the circulation of the blood, was born at Folkestone, Kent, 1 April 1578, in a house which was in later times the posthouse of the town and which still belongs to Caius College, Cambridge, to which Harvey bequeathed it. His father was Thomas Harvey, a Kentish yeoman. . . . In 1588 William was sent to the King's School, Canterbury. Thence he went to Cambridge, where he was admitted a pensioner in Gonville and Caius College, 31 May 1593. . . . He graduated B. A. 1597, and, determining to study medicine, travelled through France and Germany to Padua, the most famous school of physic of that time. . . . He returned to England, graduated M. D. at Cambridge 1602, and soon after took a house in the parish of St. Martin-extra-Ludgate in London. . . . On 4 Aug. 1615 he was elected Lumleian lecturer at the College of Physicians, . . . and in the following April, on the 16th, 17th, and 18th, he delivered at the college in Knight-ridger Street, near St. Paul's Cathedral, the lectures in which he made the first public statement of his thoughts on the circulation of the blood. The notes from which he delivered these lectures exist in their original manuscript and binding at the British Museum. . . . In 1628, twelve years after his first statement of it in his lectures, he published at Frankfurt, through William Fitzer, his discovery of the circulation of the blood. The book is a small quarto, entitled 'Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus,' and contains seventy-two pages and two plates of diagrams. The printers evidently had difficulty in reading the author's handwriting,

and there are many misprints. . . . He begins by modestly stating how the difficulties of the subject had gradually become clear to him, and by expressing with a quotation from the 'Andria' of Terence, the hope that his discovery might help others to still further knowledge. He then describes the motions of arteries, of the ventricles of the heart, and of its auricles, as seen in living animals, and the use of these movements. He shows that the blood coming into the right auricle from the vena cava, and passing then to the right ventricle, is pumped out to the lungs through the pulmonary artery, passes through the parenchyma of the lungs, and comes thence by the pulmonary veins to the left ventricle. This same blood, he shows, is then pumped out to the body. It is carried out by arteries and comes back by veins, performing a complete circulation. He shows that, in a live snake, when the great veins are tied some way from the heart, the piece of vein between the ligature and the heart is empty, and further, that blood coming from the heart is checked in an artery by a ligature, so that there is blood between the heart and the ligature and no blood beyond the ligature. He then shows how the blood comes back to the heart by the veins, and demonstrates their valves. These had before been described by Hieronymus Fabricius of Aquapendente, but before Harvey no exact explanation of their function had been given. He gives diagrams showing the results of obstructing the veins, and that these valves may thus be seen to prevent the flow of blood in the veins in any direction except towards the heart. After a summary of a few lines in the fourteenth chapter he further illustrates the perpetual circuit of the blood, and points out how morbid materials are carried from the heart all over the body. The last chapter gives a masterly account of the structure of the heart in men and animals, and points out that the right ventricle is thinner than the left because it has only to send the blood a short way into the lungs, while the left ventricle has to pump it all over the body. This great and original book at once attracted attention and excited discussion. In the College of Physicians of London, where Harvey had mentioned the discovery in his lectures every year since 1616, the Exercitatio received all the honour it deserved. On the continent of Europe it was received with less favour, but neither in England nor abroad did any one suggest that the discovery was to be found in other writers. . . . Before his death the great discovery of Harvey was accepted throughout the medical world. The modern controversy . . . as to whether the discovery was taken from some previous author is sufficiently refuted by the opinion of the opponents of his views in his own time, who agreed in denouncing the doctrine as new; by the laborious method of gradual demonstration obvious in his book and lectures; and, lastly, by the complete absence of lucid demonstration of the action of the heart and course of the blood in Cæsalpinus, Servetus, and all others who have been suggested as possible originals of the discovery. It remains to this day the greatest of the discoveries of physiology, and its whole honour belongs to Harvey."—N. Moore, *Harvey* (*Dict. of National Biog.*, v. 25).

ALSO IN: R. Willis, *William Harvey: A history of the Discovery of the Circulation of the Blood.*

17th Century.—Discovery of the Lymphatic Circulation.—"The discovery of the lymphatic vessels and their purpose was scarcely less remarkable than that of the circulation of the blood. It has about it less of eclat, because it was not the work of one man, but was a matter of slow development. Herophilus and Erasistratus had seen white vessels connected with the lymph nodes in the mesentery of certain animals, and had supposed them to be arteries full of air. Galen disputed this, and believed the intestinal chyle to be carried by the veins of the mesentery into the liver. In 1568 Eustachius had described the thoracic duct in the horse; in 1623 Aselli, professor of anatomy at Milan, discovered the lacteal vessels in a dog which had been killed immediately after eating. Having pricked one of these by mistake, he saw a white fluid issue from it. Repeating the same experiment at other times he became certain that the white threads were vessels which drew the chyle from the intestines. He observed the valves with which they are supplied, and supposed these vessels to all meet in the pancreas and to be continued into the liver. In 1647 Pecquet, who was still a student at Montpellier, discovered the lymph reservoir, or receptaculum chyli, and the canal which leads from it, i. e., the thoracic duct, which he followed to its termination in the left subclavian vein. Having ligated it he saw it swell below, and empty itself above the ligature. He studied the courses of the lacteals, and convinced himself that they all entered into the common reservoir. His discovery gave the last blow to the ancient theory, which attributed to the liver the function of blood making, and it confirmed the doctrine of Harvey, while, like it, it had been very strongly opposed. Strangely enough, Harvey in this instance united with his great opponent, Riolan, in making common cause against the discovery of Pecquet and its significance. From that time the lymphatic vessels and glands became objects of common interest and were investigated by many anatomists, especially Bartholin, Ruysch, the Hunters, Hewson, and above all by Mascagni. He was the first to give a graphic description of the whole lymphatic apparatus."—Roswell Park, *Lects. on the Hist. of Medicine* (in MS.).

17th Century.—Descartes and the dawn of modern Physiological science.—"The essence of modern, as contrasted with ancient, physiological science appears to me to lie in its antagonism to animistic hypotheses and animistic phraseology. It offers physical explanations of vital phenomena, or frankly confesses that it has none to offer. And, so far as I know, the first person who gave expression to this modern view of physiology, who was bold enough to enunciate the proposition that vital phenomena, like all the other phenomena of the physical world, are, in ultimate analysis, resolvable into matter and motion was René Descartes. The fifty-four years of life of this most original and powerful thinker are widely overlapped, on both sides, by the eighty of Harvey, who survived his younger contemporary by seven years, and takes pleasure in acknowledging the French philosopher's appreciation of his great discovery. In fact, Descartes accepted the doctrine of the circulation as propounded by 'Harvæus médecin d'Angleterre,' and gave a full account of it in his first work, the famous 'Discours de la Méthode,' which was

published in 1637, only nine years after the exertion 'De motu cordis;' and, though differing from Harvey on some important points (in which it may be noted, in passing, Descartes was wrong and Harvey right), he always speaks of him with great respect. And so important does the subject seem to Descartes that he returns to it in the 'Traité des Passions' and in the 'Traité de l'Homme.' It is easy to see that Harvey's work must have had a peculiar significance for the subtle thinker, to whom we owe both the spiritualistic and the materialistic philosophies of modern times. It was in the very year of its publication, 1628, that Descartes withdrew into that life of solitary investigation and meditation of which his philosophy was the fruit. . . . Descartes uses 'thought' as the equivalent of our modern term 'consciousness.' Thought is the function of the soul, and its only function. Our natural heat and all the movements of the body, says he, do not depend on the soul. Death does not take place from any fault of the soul, but only because some of the principal parts of the body become corrupted. . . . Descartes' 'Treatise on Man' is a sketch of human physiology, in which a bold attempt is made to explain all the phenomena of life, except those of consciousness, by physical reasonings. To a mind turned in this direction, Harvey's exposition of the heart and vessels as a hydraulic mechanism must have been supremely welcome. Descartes was not a mere philosophical theorist, but a hardworking dissector and experimenter, and he held the strongest opinion respecting the practical value of the new conception which he was introducing. . . . 'It is true,' says he, 'that as medicine is now practised, it contains little that is very useful; but without any desire to depreciate, I am sure that there is no one, even among professional men, who will not declare that all we know is very little as compared with that which remains to be known; and that we might escape an infinity of diseases of the mind, no less than of the body, and even perhaps from the weakness of old age, if we had sufficient knowledge of their causes and of all the remedies with which nature has provided us.' So strongly impressed was Descartes with this, that he resolved to spend the rest of his life in trying to acquire such a knowledge of nature as would lead to the construction of a better medical doctrine. The anti-Cartesians found material for cheap ridicule in these aspirations of the philosopher; and it is almost needless to say that, in the thirteen years which elapsed between the publication of the 'Discours' and the death of Descartes, he did not contribute much to their realisation. But, for the next century, all progress in physiology took place along the lines which Descartes laid down. The greatest physiological and pathological work of the seventeenth century, Borelli's treatise 'De Motu Animalium,' is, to all intents and purposes, a development of Descartes' fundamental conception; and the same may be said of the physiology and pathology of Boerhaave, whose authority dominated in the medical world of the first half of the eighteenth century. With the origin of modern chemistry, and of electrical science, in the latter half of the eighteenth century, aids in the analysis of the phenomena of life, of which Descartes could not have dreamed, were offered to the physiologist. And the greater part of the gigantic progress which has been

made in the present century is a justification of the prevision of Descartes. For it consists, essentially, in a more and more complete resolution of the grosser organs of the living body into physico-chemical mechanisms. 'I shall try to explain our whole bodily machinery in such a way, that it will be no more necessary for us to suppose that the soul produces such movements as are not voluntary, than it is to think that there is in a clock a soul which causes it to show the hours.' These words of Descartes might be appropriately taken as a motto by the author of any modern treatise on physiology.—T. H. Huxley, *Connection of the Biological Sciences with Medicine (Science and Culture, etc., lect. 13).*

17th Century.—Introduction of Peruvian Bark.—"The aborigines of South America appear, except perhaps in one locality, to have been ignorant of the virtues of Peruvian bark. This sovereign remedy is absent in the wallets of itinerant doctors, whose materia medica has been handed down from father to son, since the days of the Incas. It is mentioned neither by the Ynca Garcilasso de la Vega, nor by Acosta, in their lists of Indian medicines. It seems probable, nevertheless, that the Indians were aware of the virtues of Peruvian bark in the neighborhood of Loxa, 280 miles south of Quito, where its use was first made known to Europeans; and the local name for the tree quina-quina, 'bark of bark,' indicates that it was believed to possess some special medicinal properties. . . . In 1638 the wife of Don Luis Geronimo Fernandez de Cabrera Bobadilla y Mendoza, fourth Count of Chinchon, and Viceroy of Peru, lay sick of an intermittent fever in the palace of Lima. . . . The news of her illness at Lima reached Don Francisco Lopez de Canizares, the Corregidor of Loxa, who had become acquainted with the febrifuge virtues of the bark. He sent a parcel of it to the Vice-Queen, and the new remedy, administered by her physician, Dr. Don Juan de Vega, effected a rapid and complete cure. . . . The Countess of Chinchon returned to Spain in the spring of 1640, bringing with her a supply of that precious quina bark which had worked so wonderful a cure upon herself, and the healing virtues of which she intended to distribute amongst the sick on her husband's estates. It thus gradually became known in Europe, and was most appropriately called Countess's powder (*Pulvis Comitissæ*). By this name it was long known to druggists and in commerce. . . . In memory of the great service to humanity performed by the Countess of Chinchon, Linnæus named the genus which yields Peruvian bark, *Cinchona*. Unfortunately the great botanist was misinformed as to the name of her whom he desired to honour. This is to be accounted for by his having received his knowledge of the Countess through a foreign and not a Spanish source. Thus misled, Linnæus spelt the word *Cinchona* . . . and *Cinhona*, . . . omitting one or two letters. . . . After the cure of the Countess of Chinchon the Jesuits were the great promoters of the introduction of bark into Europe. In 1670 these fathers sent parcels of the powdered bark to Rome, whence it was distributed to members of the fraternity throughout Europe, by Cardinal de Lugo, and used for the cure of agues with great success. Hence the name of 'Jesuits' bark,' and 'Cardinal's bark;' and it was a ludicrous result of its patronage by the

Jesuits that its use should have been for a long time opposed by Protestants, and favoured by Roman Catholics. In 1679 Louis XIV. bought the secret of preparing quinquina from Sir Robert Talbor, an English doctor, for 2,000 louis-d'or, a large pension, and a title. From that time Peruvian bark seems to have been recognised as the most efficacious remedy for intermittent fevers."

—C. R. Markham, *Peruvian Bark*, ch. 2-4.

17th Century.—Sydenham, the Father of Rational Medicine.—"Sydenham [Thomas Sydenham, 1624-1689], the prince of practical physicians, whose character is as beautiful and as genuinely English as his name, did for his art what Locke did for the philosophy of mind—he made it, in the main, observational; he made knowledge a means, not an end. It would not be easy to over-estimate our obligations as a nation to these two men, in regard to all that is involved in the promotion of health of body and soundness of mind. They were among the first in their respective regions to show their faith in the inductive method, by their works. They both professed to be more of guides than critics, and were the interpreters and servants of Nature, not her diviners and tormentors." Of Sydenham, "we must remember in the midst of what a mass of errors and prejudices, of theories actively mischievous, he was placed, at a time when the mania of hypothesis was at its height, and when the practical part of his art was over-run and stultified by vile and silly nostrums. We must have all this in our mind, or we shall fail in estimating the amount of independent thought, of courage and uprightness, and of all that deserves to be called magnanimity and virtue, which was involved in his thinking and writing and acting as he did. 'The improvement of physic [he wrote] in my opinion, depends, 1st, Upon collecting as genuine and natural a description or history of diseases as can be procured; and, 2d, Upon laying down a fixed and complete method of cure. With regard to the history of diseases, whoever considers the undertaking deliberately will perceive that a few such particulars must be attended to: 1st, All diseases should be described as objects of natural history, with the same exactness as is done by botanists, for there are many diseases that come under the same genus, and bear the same name, that, being specifically different, require a different treatment. The word carduus or thistle, is applied to several herbs, and yet a botanist would be inaccurate and imperfect who would content himself with a generic description. Furthermore, when this distribution of distempers into genera has been attempted, it has been to fit into some hypothesis, and hence this distribution is made to suit the bent of the author rather than the real nature of the disorder. How much this has obstructed the improvement of physic any man may know. In writing, therefore, such a natural history of diseases, every merely philosophical hypothesis should be set aside, and the manifest and natural phenomena, however minute, should be noted with the utmost exactness. The usefulness of this procedure cannot be easily over-rated, as compared with the subtle inquiries and trifling notions of modern writers. . . . If only one person in every age had accurately described, and consistently cured, but a single disease, and made known his secret, physic would not be where it now is; but we have long since forsook

the ancient method of cure, founded upon the knowledge of conjunct causes, insomuch that the art, as at this day practised, is rather the art of talking about diseases than of curing them.' . . . His friend Locke could not have stated the case more clearly or sensibly. It is this doctrine of 'conjunct causes,' this necessity for watching the action of compound and often opposing forces, and the having to do all this not in a machine, of which if you have seen one, you have seen all, but where each organism has often much that is different from, as well as common with, all others. . . . It is this which takes medicine out of the category of exact sciences, and puts it into that which includes politics, ethics, navigation and practical engineering, in all of which, though there are principles, and those principles quite within the scope of human reason, yet the application of these principles must, in the main, be left to each man's skill, presence of mind, and judgment, as to the case in hand. . . . It would not be easy to over-estimate the permanent impression for good, which the writings, the character, and the practice of Sydenham have made on the art of healing in England, and on the Continent generally. In the writings of Boerhaave, Stahl, Gaubius, Pinel, Bordeu, Haller, and many others, he is spoken of as the father of rational medicine; as the first man who applied to his profession the Baconian principles of interpreting and serving nature, and who never forgot the master's rule, 'Non fingendum aut excogitandum, sed inveniendum, quid natura aut faciat aut ferat.' . . . Like all men of a large practical nature, he could not have been what he was, or done what he did, without possessing and often exercising the true philosophizing faculty. He was a man of the same quality of mind in this respect with Watt, Franklin, and John Hunter, in whom speculation was not the less genuine that it was with them a means rather than an end."—Dr. John Brown, *Locke and Sydenham and other Papers*, pp. 54-90.

ALSO IN: T. Sydenham, *Works*; trans. by R. G. Latham.

17th Century.—Closing period of the Humoral Pathology.—The Doctrines of Hoffmann, Stahl and Boerhaave.—"If we take a general survey of medical opinions, we shall find that they are all either subordinate to, or coincident with, two grand theories. The one of these considers the solid constituents of the animal economy as the elementary vehicle of life, and consequently places in them the primary seat of disease. The other, on the contrary, sees in the humors the original realization of vitality; and these, as they determine the existence and quality of the secondary parts, or solids, contain, therefore, within themselves, the ultimate principle of the morbid affection. By relation to these theories, the history of medicine is divided into three great periods. During the first, the two theories, still crude, are not yet disentangled from each other; this period extends from the origin of medicine to the time of Galen. The second comprehends the reign of Humoral Pathology—the interval between Galen and Fred-eric Hoffmann. In the last the doctrine of the Living Solid is predominant; from Hoffmann it reaches to the present day. . . . By Galen, Humorism was first formally expounded, and reduced to a regular code of doctrine. Four elementary fluids, their relations and changes,

sufficed to explain the varieties of natural temperament, and the causes of disease; while the genius, eloquence, and unbounded learning with which he illustrated this theory, mainly bestowed on it the ascendancy, which, without essential alteration, it retained from the conclusion of the second to the beginning of the eighteenth century. Galenism and Humorism are, in fact, convertible expressions. Not that this hypothesis during that long interval encountered no opposition. It met, certainly, with some partial contradiction among the Greek and Arabian physicians. After the restoration of learning Fernellius and Brissonot, Argenterius and Joubert, attacked it in different ways. . . . Until the epoch we have stated, the prevalence of the Humoral Pathology was, however, all but universal. Nor was this doctrine merely an erroneous speculation; it exerted the most decisive, the most pernicious influence on practice. — The various diseased affections were denominated in accommodation to the theory. In place of saying that a malady affected the liver, the peritonæum, or the organs of circulation, its seat was assumed in the blood, the bile, or the lymph. The morbid causes acted exclusively on the fluids; the food digested in the stomach, and converted into chyle, determined the qualities of the blood; and poisons operated through the corruption they thus effected in the vital humors. All symptoms were interpreted in blind subservience to the hypothesis; and those only attracted attention which the hypothesis seemed calculated to explain. The color and consistence of the blood, mucus, feces, urine, and pus, were carefully studied. On the other hand the phenomena of the solids, if not wholly overlooked, as mere accidents, were slumped together under some collective name, and attached to the theory through a subsidiary hypothesis. By supposed changes in the humors, they explained the association and consecution of symptoms. Under the terms, crudity, coction, and evacuation, were designated the three principal periods of diseases, as dependent on an alteration of the morbid matter. In the first, this matter, in all its deleterious energy, had not yet undergone any change on the part of the organs; it was still crude. In the second, nature gradually resumed the ascendant; coction took place. In the third, the peccant matter, now rendered mobile, was evacuated by urine, perspiration, dejection, &c., and equilibrium restored. When no critical discharge was apparent, the morbid matter, it was supposed, had, after a suitable elaboration, been assimilated to the humors, and its deleterious character neutralized. Coction might be perfect or imperfect; and the transformation of one disease into another was lightly solved by the transport or emigration of the noxious humor. . . . Examinations of the dead body confirmed them in their notions. In the redness and tumefaction of inflamed parts, they beheld only a congestion of blood; and in dropsies, merely the dissolution of that fluid; tubercles were simply coagula of lymph; and other organic alterations, in general, naught but obstructions from an increased viscosity of the humors. The plan of cure was in unison with the rest of the hypothesis. Venesection was copiously employed to renew the blood, to attenuate its consistency, or to remove a part of the morbid matter with which it was impregnated; and cathartics, sudorifics, diuretics, were largely

administered, with a similar intent. In a word, as plethora or cacochymia were the two great causes of disease, their whole therapeutic was directed to change the quantity or quality of the fluids. Nor was this murderous treatment limited to the actual period of disease. Seven or eight annual bleedings, and as many purgations — such was the common regimen the theory prescribed to insure continuance of health; and the twofold depletion, still customary, at spring and fall, among the peasantry of many European countries, is a remnant of the once universal practice. In Spain, every village has even now its Sangrador, whose only cast of surgery is blood-letting; and he is rarely idle. The medical treatment of Lewis XIII. may be quoted as a specimen of the humoral therapeutic. Within a single year this theory inflicted on that unfortunate monarch above a hundred cathartics, and more than forty bleedings. — During the fifteen centuries of Humorism, how many millions of lives did medicine cost mankind? The establishment of a system founded on the correcter doctrine of Solidism, and purified from the crudities of the Iatro-mathematical and Iatro-chemical hypotheses was reserved for three celebrated physicians toward the commencement of the eighteenth century — Frederic Hoffmann — George Ernest Stahl — and Hermann Boerhaave. The first and second of this triumvirate were born in the same year, were both pupils of Wedellius of Jena, and both professors, and rival professors, in the University of Halle; the third was eight years younger than his contemporaries, and long an ornament of the University of Leyden. — Sir W. Hamilton, *Discussions on Philosophy and Literature*, pp. 246-249. — “The great and permanent merits of Hoffmann [1660-1742] as a medical philosopher, undoubtedly consisted in his having perceived and pointed out more clearly than any of his predecessors, the extensive and powerful influence of the Nervous System, in modifying and regulating at least, if not in producing, all the phenomena of the organic as well as of the animal functions in the human economy, and more particularly in his application of this doctrine to the explanation of diseases. . . . It was reserved for Hoffmann . . . to take a comprehensive view of the Nervous System, not only as the organ of sense and motion, but also as the common centre by which all the different parts of the animal economy are connected together, and through which they mutually influence each other. He was, accordingly, led to regard all those alterations in the structure and functions of this economy, which constitute the state of disease, as having their primary origin in affections of the nervous system, and as depending, therefore, upon a deranged state of the imperceptible and contractile motions in the solids, rather than upon changes induced in the chemical composition of the fluid parts of the body.” — J. Thomson, *Account of the Life, Lectures and Writings of William Cullen*, pp. 195-196. — “George Ernest Stahl (1660-1734), chemist, was professor of medicine at Halle (1694) and physician to the King of Prussia (1716). He opposed materialism, and substituted ‘animism,’ explaining the symptoms of disease as efforts of the soul to get rid of morbid influences. Stahl’s ‘anima’ corresponds to Sydenham’s ‘nature’ in a measure, and has some relationship to the Archeus of Paracelsus and Van Helmont. Stahl

was the author of the 'phlogiston' theory in chemistry, which in its time has had important influence on medicine. Phlogiston was a substance which he supposed to exist in all combustible matters, and the escape of this principle from any compound was held to account for the phenomenon of fire. According to Stahl, diseases arise from the direct action of noxious powers upon the body; and from the reaction of the system itself endeavouring to oppose and counteract the effects of the noxious powers, and so preserve and repair itself. He did not consider diseases, therefore, pernicious in themselves, though he admitted that they might become so from mistakes made by the soul in the choice, or proportion of the motions excited to remove them, or the time when these efforts are made. Death, according to this theory, is due to the indolence of the soul, leading it to desist from its vital motions, and refusing to continue longer the struggle against the derangements of the body. Here we have the 'expectant treatment' so much in vogue with many medical men. 'Trusting to the constant attention and wisdom of nature,' they administered inert medicines as placebos, while they left to nature the cure of the disease. But they neglected the use of invaluable remedies such as opium and Peruvian bark, for which error it must be admitted they atoned by discountenancing bleeding, vomiting, etc. Stahl's remedies were chiefly of the class known as 'Antiphlogistic,' or anti-febrile." — E. Berdoe, *The Origin and Growth of the Healing Art*, bk. 5, ch. 7. — "The influence of Boerhaave [1668-1738] was immense while it lasted — it was world-wide; but it was like a ripple on the ocean — it had no depth. He knew everything and did everything better than any of his contemporaries, except those who made one thing, not everything, their study. He was familiar with the researches of the great anatomists, of the chemists, of the botanists, of historians, of men of learning, but he was not a great anatomist, chemist, or historian. As to his practice, we cannot pronounce a very decided opinion, except that he was a man of judgment and independence. Here his reputation made his success: a prescription of his would no doubt effect many a cure, although the patient had taken the remedy he prescribed fifty times without any benefit. His greatness depended upon his inexhaustible activity. He had the energy of a dozen ordinary men, and so he was twelve times as powerful as one. He mentions quite incidentally how he was in the habit of frequently spending whole nights in botanical excursions on foot; and we know he had no time to sleep in the day. He took an interest in everything, was always on the alert, had a prodigious memory, and indefatigable industry. On these great homely qualities, added to a kind disposition and an unaffected piety, his popularity was founded. It was all fairly won and nobly worn. It is startling, however, to find that a man whose name one hundred years ago was familiar to the ear as household words, and of whom historians predicted that he would always be regarded as one of the greatest as well as best of men, an example to his race, should be already almost forgotten. An example is of no use unless it is known; Boerhaave is now unknown. The reason is plain; — he was not the founder of any system, nor did he make any discovery. He simply

used with supreme success the thoughts and discoveries of others; as soon as he ceased to live, his influence began therefore to decline; and before his generation had passed away, his star had waned before the genius of Cullen, who succeeded in fixing the attention of Europe, and who, in his turn, was soon to be displaced by others." — J. R. Russell, *History and Heroes of the Art of Medicine*, pp. 297-298.

17-18th Centuries.—Introduction of the Microscope in Medicine.—First glimmerings of the Germ Theory of Disease.—"Since Athanasius Kircher [1601-1680] mistook blood and pus corpuscles for small worms, and built up on his mistake a new theory of disease and putrefaction, and since Christian Lange, the Professor of Pathological Anatomy in Leipzig, in the preface to Kircher's book (1671) expressed his opinion that the purpura of lying-in-women, measles, and other fevers were the result of putrefaction caused by worms or animalculæ, a 'Pathologia Animata' has, from time to time, been put forward to explain the causation of disease. . . . Remarkable as were Kircher's observations, still more wonderful were those of Anthony van Leeuwenhoek, a native of Delft in Holland, who in his youth had learned the art of polishing lenses, and who was able, ultimately, to produce the first really good microscope that had yet been constructed. Not only did Leeuwenhoek make his microscope, but he used it to such good purpose that he was able to place before the Royal Society of London a series of most interesting and valuable letters giving the result of his researches on minute specks of living protoplasm. . . . The world that Leeuwenhoek . . . opened up so thoroughly was rapidly invaded by other observers and theorists. The thoughtful physicians of the time believed that at last they had found the 'fons et origo mali,' and Nicolas Andry, reviewing Kircher's 'Contagium Animatum,' replaced his worms by these newly-described animalculæ or germs, and pushing the theory to its legitimate and logical conclusion, he also evolved a germ theory of putrefaction and fermentation. He maintained that air, water, vinegar, fermenting wine, old beer, and sour milk were all full of germs; that the blood and pustules of smallpox also contained them, and that other diseases, very rife about this period, were the result of the activity of these organisms. Such headway did he make, and such conviction did his arguments carry with them, that the mercurial treatment much in vogue at that time was actually based on the supposition that these organisms, the 'causæ causantes' of disease, were killed by the action of mercury and mercurial salts. With a kind of prophetic instinct, and certainly as the result of keen observation, Varro and Lancisi ascribed the dangerous character of marsh or swamp air to the action of invisible animalculæ; in fact the theory was so freely and forcibly propagated that even where no micro-organisms could be found their presence was inferred with the inevitable result, as Löffler points out, that these 'inconceivable' worms became the legitimate butts for the shafts of ridicule; and in 1726 there appeared in Paris a satirical work, in which these small organisms received the name of 'fainter,' 'body-pincher,' 'ulcerator,' 'weeping fistula,' 'sensualist'; the whole system was thus laughingly held up to satire, and the germ theory

of disease completely discredited. Linnæus [1707-1778], however, with his wonderful powers of observation and deduction, considered that it was possible that there might be rescued from this 'chaos' small living beings which were as yet insufficiently separated and examined, but in which he firmly believed might lie not only the actual contagium of certain eruptive diseases, and of acute fevers, but also the exciting causes of both fermentation and putrefaction. The man, however, who of all workers earliest recognized the importance of Linnæus' observations was a Viennese doctor, Marcus Antonius Plenciz. . . . He it was who, at this time, insisted upon the specific character of the infective agent in every case of disease; for scarlet fever there was a scarlet fever seed or germ—a seed which could never give rise to smallpox. He showed that it was possible for this organism to become disseminated through the air, and for it to multiply in the body; and he explained the incubation stage of a febrile disease as dependent on the growth of a germ within the body during the period after its introduction, when its presence had not yet been made manifest. . . . As regards putrefaction, having corroborated Linnæus' observations and found countless animalculæ in putrefying matter, he came to the conclusion that this process was the result of the development, multiplication, and carrying on of the functions of nutrition and excretion by these germs; the products of fermentation being the volatile salts set free by the organisms, which, multiplying rapidly by forming seeds or eggs, rendered the fluid in which they developed thick, turbid, and foul. This theory, admirable as it was, and accurate as it has since been proved to be, could not then be based on any very extensive or detailed observation, and we find that some of the most prominent and brilliant men of the period did not feel justified in accepting the explanation that Plenciz had offered as to the causes of disease and fermentation processes."—G. S. Woodhead, *Bacteria and their Products*, ch. 8.

17-18th Centuries.—Hahnemann and the origin of the System of Homœopathy.—Samuel Hahnemann, originator of the system of medicine called "Homœopathy," was born in 1755, at Meissen, in Saxony. He studied medicine at Leipsic, and afterwards at Vienna. In 1784 he settled in Dresden, but returned to Leipsic in 1789. "In the following year, while translating Cullen's *Materia Medica* out of English into German, his attention was arrested by the insufficient explanations advanced in that work of the cure of ague by cinchona bark. By way of experiment, he took a large dose of that substance to ascertain its action on the healthy body. In the course of a few days he experienced the symptoms of ague; and it thus occurred to him that perhaps the reason why cinchona cures ague is because it has the power to produce symptoms in a healthy person similar to those of ague. To ascertain the truth of this conjecture, he ransacked the records of medicine for well-attested cures effected by single remedies; and finding sufficient evidences of this fact, he advanced a step further, and proposed, in an article published in *Hufeland's Journal*, in the year 1797, to apply this new principle to the discovery of proper medicines for every form of disease. Soon afterwards he published a case to illustrate

his method. It was one of a severe kind of colic cured by a strong dose of *veratrum album*. Before this substance gave relief to the patient it excited a severe aggravation of his symptoms. This induced Hahnemann, instead of drops or grains, to give the fraction of a drop or grain, and he thus introduced infinitesimal doses. Some years later he applied his new principle in the treatment of scarlet fever; and finding that belladonna cured the peculiar type of that disease, which then prevailed in Germany, he proposed to give this medicine as a prophylactic, or preventive against scarlet fever; from that time it has been extensively employed for this purpose. In the year 1810 he published his great work, entitled *Organon of Medicine*, which has been translated into all the European languages, as well as into Arabic. In this book he fully expounded his new system, which he called Homœopathy. His next publication was a *Materia Medica*, consisting of a description of the effects of medicines upon persons in health. These works were published between the years 1810 and 1821, at Leipsic, where he founded a school, and was surrounded by disciples. As his system involved the administration of medicines, each separately by itself, and in doses infinitely minute, there was no longer any need of the apothecaries' intervention between the physician and the patient. In consequence of this the Apothecaries Company brought to bear upon Hahnemann an act forbidding physicians to dispense their own medicines, and with such effect that he was obliged to leave Leipsic. The Grand Duke of Anhalt Köthen, appointed him his physician, and invited him to live at Köthen. Thither, accordingly, he removed in the year 1821, and there he prepared various new editions of his *Organon*, and new volumes of his *Materia Medica* for publication. In 1835 he married a second time; his wife was a French lady of considerable position; and in the same year he left Köthen, and settled in Paris, where he enjoyed a great reputation till his death, which took place in the year 1843."—W. Bayes, *Origin and Present Status of Homœopathy* (Trans. of the Homœopathic Medical Soc. of the State of N. Y., 1869, art. 21).

ALSO IN: W. Ancke, *Hist. of Homœopathy*.—J. C. Burnett, *Ecce Medicus; or Hahnemann as a man and as a physician*.

18th Century.—The work of John Hunter in surgery and anatomy.—"John Hunter [born 1728, died 1793] was not only one of the most profound anatomists of the age in which he lived, but he is by the common consent of his successors allowed to be one of the greatest men that ever practised surgery. One of the most striking discoveries in this part of his profession—indeed one of the most brilliant in surgery of his century—was the operation for the cure of popliteal aneurism by tying the femoral artery above the tumour in the ham, and without interfering with it. He improved the treatment of the rupture of the tendo achillis, in consequence of having experienced the accident himself when dancing. He invented the method of curing fistula lacrymalis by perforating the os unguis, and curing hydrocele radically by injection. His anatomical discoveries were numerous and important—amongst others the distribution of the blood-vessels of the uterus, which he traced till their disappearance in the placenta. He was the

first who demonstrated the existence of lymphatic vessels in birds; described the distribution of the branches of the olfactory nerve, as well as those of the fifth pair; and to him we owe the best and most faithful account of the descent of the testicle in the human subject, from the abdomen into the scrotum. Physiology is also indebted to him for many new views and ingenious suggestions. . . . 'Before his time surgery had been little more than a mechanical art, somewhat dignified by the material on which it was employed. Hunter first made it a science; and by pointing out its peculiar excellence as affording visible examples of the effects and progress of disease, induced men of far higher attainments than those who had before practised it to make it their study.' The best monument of his genius and talents, however, is the splendid museum which he formed by his sole efforts, and which he made, too, when labouring under every disadvantage of deficient education and limited means. It shows that as an anatomist and physiologist he had no superior."—W. Baird, *Hunter (Imperial Dict. of Univ. Biog.)*.

ALSO IN: S. D. Gross, *John Hunter and his Pupils*.

18th Century.—Preventive Inoculation against Smallpox.—"One of the most notable events of the 18th century, or for that matter, in the history of medicine, was the introduction of the systematic practice of preventive inoculation against small-pox. We are so generally taught that this is entirely due to the efforts of Jenner, or rather we are so often allowed to think it without being necessarily taught otherwise, that the measure deserves a historical sketch. The communication of the natural disease to the healthy in order to protect them from the same natural disease, in other words, the communication of small-pox to prevent the same, reaches back into antiquity. It is mentioned in the Sanskrit Vedas as then performed, always by Brahmans, who employed pus procured from small-pox vesicles a year before. They rubbed the place selected for operation until the skin was red, then scratched with a sharp instrument, and laid upon the place cotton soaked in the variolous pus, moistened with water from the sacred Ganges. Along with this measure they insisted upon most hygienic regulations, to which in a large measure their good results were due. Among the Chinese was practised what was known as 'Pock-sowing,' and as long ago as 1000 years before Christ they introduced into the nasal cavities of young children pledgets of cotton saturated with variolous pus. The Arabians inoculated the same disease with needles, and so did the Circassians, while in the states of north Africa incisions were made between the fingers, and among some of the negroes inoculation was performed in or upon the nose. In Constantinople, under the Greeks, the custom had long been naturalized and was practised by old women instructed in the art, who regarded it as a revelation of St. Mary. The first accounts of this practice were given to the Royal Society by Timoni, a physician of Constantinople, in 1714. The actual introduction of the practice into the West, however, was due to Lady Mary Wortley Montagu, who died in 1762, and who was wife of the English ambassador to the Porte in 1717. She had her son inoculated in Constantinople by her surgeon Maitland, and after her return to Lon-

don, in 1721, it was also performed upon her daughter. During the same years experiments were undertaken by Maitland upon criminals, and as these turned out favorably, the Prince of Wales and his sisters were inoculated by Mead. The practice was then more or less speedily adopted on this side of the ocean as well as on that, but suffered occasional severe blows because of unfortunate cases here and there, such as never can be avoided. The clergy, especially, using the Bible, as designing men always can use it, to back up any view or practice, became warm opponents of vaccination, and stigmatized it as a very atrocious invasion of the Divine prerogative of punishment. But in 1746 the Bishop of Worcester recommended it from the pulpit, and established houses for inoculation, and thus made it again popular. In Germany the operation was generally favored, and in France and Italy a little later came into vogue."—Roswell Park, *Lects. on the Hist. of Medicine (in MS.)*.

18th Century.—Jenner and the discovery of Vaccination.—Many before the English physician, Dr. Jenner, "had witnessed the cow-pox, and had heard of the report current among the milkmaids in Gloucestershire, that whoever had taken that disease was secure against smallpox. It was a trifling, vulgar rumor, supposed to have no significance whatever; and no one had thought it worthy of investigation, until it was accidentally brought under the notice of Jenner. He was a youth, pursuing his studies at Sudbury, when his attention was arrested by the casual observation made by a country girl who came to his master's shop for advice. The smallpox was mentioned, when the girl said, 'I can't take that disease, for I have had cow-pox.' The observation immediately riveted Jenner's attention, and he forthwith set about inquiring and making observations on the subject. His professional friends, to whom he mentioned his views as to the prophylactic virtues of cow-pox, laughed at him, and even threatened to expel him from their society, if he persisted in harassing them with the subject. In London he was so fortunate as to study under John Hunter [1770-1773] to whom he communicated his views. The advice of the great anatomist was thoroughly characteristic: 'Don't think, but try; be patient, be accurate.' Jenner's courage was greatly supported by the advice, which conveyed to him the true art of philosophical investigation. He went back to the country to practise his profession, and carefully to make observations and experiments, which he continued to pursue for a period of twenty years. His faith in his discovery was so implicit that he vaccinated his own son on three several occasions. At length he published his views in a quarto of about seventy pages, in which he gave the details of twenty-three cases of successful vaccination of individuals, to whom it was found afterwards impossible to communicate the smallpox either by contagion or inoculation. It was in 1796 that this treatise was published; though he had been working out his ideas as long before as 1775, when they began to assume a definite form. How was the discovery received? First with indifference, then with active hostility. He proceeded to London to exhibit to the profession the process of vaccination and its successful results; but not a single doctor could be got to make a trial of it, and after fruitlessly waiting for nearly three months, Jenner

returned to his native village. He was even caricatured and abused for his attempt to 'bestialize' his species by the introduction into their systems of diseased matter from the cow's udder. Cobbett was one of his most furious assailants. Vaccination was denounced from the pulpit as 'diabolical.' It was averred that vaccinated children became 'ox-faced,' that abscesses broke out to 'indicate sprouting horns,' and that the countenance was gradually 'transmuted into the visage of a cow, the voice into the bellowing of bulls.' Vaccination, however, was a truth, and notwithstanding the violence of the opposition belief in it spread slowly. In one village where a gentleman tried to introduce the practice, the first persons who permitted themselves to be vaccinated were absolutely pelted, and were driven into their houses if they appeared out of doors. Two ladies of title,—Lady Ducie and the Countess of Berkeley,—to their honor be it remembered,—had the courage to vaccinate their own children; and the prejudices of the day were at once broken through. The medical profession gradually came round, and there were several who even sought to rob Dr. Jenner of the merit of the discovery, when its vast importance came to be recognized. Jenner's cause at last triumphed, and he was publicly honored and rewarded. In his prosperity he was as modest as he had been in his obscurity. He was invited to settle in London, and told that he might command a practice of £10,000 a year. But his answer was, 'No! In the morning of my days I have sought the sequestered and lowly paths of life,—the valley, and not the mountain,—and now, in the evening of my days, it is not meet for me to hold myself up as an object for fortune and for fame.' In Jenner's own lifetime the practice of vaccination had been adopted all over the civilized world; and when he died, his title as Benefactor of his kind was recognized far and wide. Cuvier has said, 'If vaccine were the only discovery of the epoch, it would serve to render it illustrious forever.'—S. Smiles, *Self-help*, ch. 4.

ALSO IN: J. Barron, *Life of Edward Jenner*.

18th Century.—The Brunonian System of Stimulation.—"John Brown, born of obscure parents in a village of Berwick, in Scotland, was remarkable, from his early youth, for an extraordinary aptitude for acquiring languages, a decided inclination for scholastic dispute, a pedantic tone and manner, and somewhat irregular conduct. Having abandoned theology for medicine, he fixed his residence in Edinburgh. . . . He was particularly entertained and countenanced by Cullen, who even took him into his family in the character of preceptor of his children. This agreeable relation subsisted during twelve consecutive years between these two men, whose characters and minds were so different. . . . But some trifling matters of mutual discontent grew at length into coldness, and changed the old friendship which had united them into an irreconcilable hatred. Their rupture broke out about the year 1778, and in a short time after, Brown published his *Elements of Medicine*. . . . Brown employed some of the ideas of his master to develop a doctrine much more simple in appearance, but founded entirely on abstract considerations; a doctrine in which every provision seems to be made for discussion, but none for practice. Cullen had said that the nervous sys-

tem receives the first impression of excitants, and transmits it afterwards to the other organs endowed with motion and vitality. Brown explains thus, the same thought: 'Life is only sustained by incitation. It is only the result of the action of incitants on the incitability of organs.' Cullen regarded the atony of the small vessels as the proximate cause of fever. Brown, improving on this hypothesis, admits, with hardly any exceptions, only hyposthenic diseases. . . . The Scotch physiologist distinguished only two pathological states—one consisting in an excess of incitability, which he names the sthenic diathesis; the other, constituted by a want, more or less notable, of the same faculty, which he designates as the asthenic diathesis. Besides, Brown considers these two states as affecting the entire economy, rather than any organ in particular. . . . After having reduced all diseases to two genera, and withdrawn from pathology the study of local lesions, Brown arrives, by a subtle argumentation, to consider the affections of the sthenic order as prevailing in a very small number of instances, so that the diseases of the asthenic type comprehend nearly the totality of affections. According to this theory, a physician is rarely ever mistaken if he orders in all his cases, remedies of an exciting nature. . . . Never since the days of Thessalus (of charlatan memory) had any one simplified to such a point the study and practice of medicine. We may even say that in this respect the Scotch pathologist left far in the rear the physician of Nero. To this attraction, well calculated to tempt students and practitioners, the doctrine of Brown joined the advantage of being presented in an energetic and captivating style, full of imagery, which suffices to explain its rapid progress. But this doctrine, so seductive in its exposition, so easy in its application, is one of the most disastrous that man has been able to imagine, for it tends to propagate the abuse of diffusible stimulants, of which spirituous liquors make a part, an abuse excessively injurious to health in general, and the intellectual faculties in particular—an abuse to which man is too much inclined, naturally, and which the sophisms of Brown may have contributed to spread in all classes of English society. . . . Notwithstanding its defects, the system of Brown made rapid progress, principally in Germany and Italy.—P. V. Renouard, *Hist. of Medicine*, pp. 555-560.

18th Century.—The System of Haller.—"About the time when we seniors commenced the study of medicine, it was still under the influence of the important discoveries which Albrecht von Haller [1708-1777] had made on the excitability of nerves; and which he had placed in connection with the vitalistic theory of the nature of life. Haller had observed the excitability in the nerves and muscles of amputated members. The most surprising thing to him was, that the most varied external actions, mechanical, chemical, thermal, to which electrical ones were subsequently added, had always the same result; namely, that they produced muscular contraction. They were only quantitatively distinguished as regards their action on the organism, that is, only by the strength of the excitation; he designated them by the common name of stimulus; he called the altered condition of the nerve the excitation, and its capacity of responding to a stimulus the excitability,

which was lost at death. This entire condition of things, which physically speaking asserts no more than the nerves, as concerns the changes which take place in them after excitation, are in an exceedingly unstable state of equilibrium; this was looked upon as the fundamental property of animal life, and was unhesitatingly transferred to the other organs and tissues of the body, for which there was no similar justification. It was believed that none of them were active of themselves, but must receive an impulse by a stimulus from without; air and nourishment were considered to be the normal stimuli. The kind of activity seemed, on the contrary, to be conditioned by the specific energy of the organ, under the influence of the vital force. Increase or diminution of the excitability was the category under which the whole of the acute diseases were referred, and from which indications were taken as to whether the treatment should be lowering or stimulating. The rigid one-sidedness and the unrelenting logic with which . . . [John] Brown had once worked out the system was broken, but it always furnished the leading points of view."—H. Helmholtz, *On Thought in Medicine* (*Popular Lects., series 2, lect. 5*).

18th Century. — Physiological Views of Bichat.—Marie Francis Xavier Bichat, was born in 1771 and died in 1802, accomplishing his extraordinary work as an anatomist and physician within a lifetime of thirty-one years. "The peculiar physiological views of Bichat are to be found stated more or less distinctly in all his works; and it is a merit of his that he has always kept in sight the necessary connexion of this part of the science of medicine with every other, and, so far as he has developed his ideas upon the subjects of pathology, materia medica, and therapeutics, they seem all to have been founded upon and connected with the principles of physiology, which he had adopted. . . . Everything around living bodies, according to Bichat, tends constantly to their destruction. And to this influence they would necessarily yield, were they not gifted with some permanent principle of reaction. This principle is their life, and a living system is therefore necessarily always engaged in the performance of functions, whose object is to resist death. Life, however, does not consist in a single principle, as has been taught by some celebrated writers, by Stahl, Van Helmont, and Barthez, &c. We are to study the phenomena of life, as we do those of other matter, and refer the operations performed in living systems to such ultimate principles as we can trace them to, in the same way that we do the operations taking place among inorganic substances. . . . His essential doctrine . . . is that there is no one single, individual, presiding principle of vitality, which animates the body, but that it is a collection of matter gifted for a time with certain powers of action, combined into organs which are thus enabled to act, and that the result is a series of functions, the connected performance of which constitutes it a living thing. This is his view of life, considered in the most general and simple way. But in carrying the examination farther, he points out two remarkable modifications of life, as considered in different relations, one common both to vegetables and animals, the other peculiar to animals. . . . Those which we have in

common with the vegetable, which are necessary merely to our individual, bodily existence, are called the functions of organic life, because they are common to all organized matter. Those, on the other hand, which are peculiar to animals, which in them are superadded to the possession of the organic functions, are called the functions of animal life. Physiologically speaking, then, we have two lives, the concurrence of which enables us to live and move and have our being; both equally necessary to the relations we maintain as human beings, but not equally necessary to the simple existence of a living thing. . . . The two lives differ, in some important respects, as to the organs by which their functions are performed. Those of the animal life present a symmetry of external form, strongly contrasted with the irregularity, which is a prominent characteristic of those of organic life. In the animal life, every function is either performed by a pair of organs, perfectly similar in structure and size, situated one upon each side of the median dividing line of the body, or else by a single organ divided into two similar and perfectly symmetrical halves by that line. . . . The organs of the organic life, on the contrary, present a picture totally different; they are irregularly formed, and irregularly arranged. . . . This symmetry of the form is accompanied by a corresponding harmony in the functions of the organs of the animal life. . . . The functions of the organic life are constantly going on; they admit of no interruption, no repose. . . . In those of the animal life, the case is widely different. They have intervals of entire repose. The organs of this life are incapable of constant activity, they become fatigued by exercise and require rest. This rest, with regard to any particular organ, is the sleep of that organ. . . . Upon this principle, Bichat founds his theory of sleep. General sleep is the combination of the sleep of particular organs. Sleep then is not any definite state, but is more or less complete rest of the whole system in proportion to the number of organs which require repose. . . . The two lives differ also in regard to habit; the animal being much under its control, the organic but slightly. . . . But the principal and most important feature in the physiological system of Bichat, is the complete, and entire, and exclusive explanation of all the phenomena of the living system upon the principles of vitality alone. Former physiologists have not always kept this distinctly in view. . . . The human body has been regarded, too often, as a mass of matter, organized to be sure, but yet under the direction of physical laws, and the performance of its functions has been ascribed to the powers of inorganic matter. Hence, physiology has generally been somewhat tinged by the favorite science of the age, with some of its notions. . . . With Bichat the properties of life were all in all. The phenomena of the system, whether in health or disease, were all ascribed to their influence and operation."—J. Ware, *Life and Writings of Bichat* (*North Am. Rev., July, 1822*).

18-19th Centuries. — Pinel and the Reform in treatment of the Insane.—Philippe Pinel, "who had attained some distinction as an alienist, was appointed, 1792, to fill the post of superintendent of the Bicêtre, which then contained upwards of 200 male patients, believed not only to be incurable, but entirely uncontrollable. The

previous experience of the physician, here stood him in good stead. He had been a diligent student of the authorities of his own and foreign countries on diseases of the mind, and in his earlier years had been appointed by the French government to report on the condition of the asylums at Paris and Charenton. On assuming the oversight of the Bicêtre, he found 53 men languishing in chains, some of whom had been bound for a great number of years. These were regarded by the authorities as dangerous and even desperate characters; but the sight of men grown gray and decrepit as the result of prolonged torture, made a very different impression on the mind of Pinel. He addressed appeal after appeal to the Commune, craving power to release, without delay, the unhappy beings under his charge. The authorities tardily and unwillingly yielded to the importunity of the physician. An official, who was deputed by the Commune to accompany the superintendent and watch his experiment, no sooner caught sight of the chained maniacs than he excitedly exclaimed: 'Ah, ça! citoyen, es-tu fou toi-même de vouloir déchaîner de pareils animaux?' The physician was not to be deterred, however, from carrying out his benevolent project, and did not rest satisfied until all of the 53 men had been gradually liberated from their chains. Singular as it may appear, the man who had been regarded as the most dangerous, and who had survived forty years of this severe treatment, was afterwards known as the faithful and devoted servant of Pinel. The reforms of Pinel were not confined to the Bicêtre, an establishment exclusively for men, but extended to the Salpêtrière, an institution for women. There is, perhaps, no more touching event in history than that of this kind-hearted and wise physician removing the bands and chains from the ill-fated inmates of this place of horrors. The monstrous fallacy of cruel treatment once fully exposed, the insane came to be looked upon as unfortunate human beings, stricken with a terrible disease, and, like other sick persons, requiring every aid which science and benevolent sympathy could provide with a view to cure. Governmental inquiries were instituted with a view to the attainment of better treatment, and in different countries, almost simultaneously, the provision of suitable and adequate accommodation for the insane was declared to be a State necessity"—W. P. Letchworth, *The Insane in Foreign Countries*, ch. 1.

19th Century.—The Discovery of Anæsthetics.—"In 1798, Mr. Humphry Davy, an apprentice to Mr. Borlase a surgeon at Bodmin, had so distinguished himself by zeal and power in the study of chemistry and natural philosophy, that he was invited by Dr. Beddoes of Bristol, to become the 'superintendent of the Pneumatic Institution which had been established at Clifton for the purpose of trying the medicinal effects of different gases.' He obtained release from his apprenticeship, accepted the appointment, and devoted himself to the study of gases, not only in their medicinal effects, but much more in all their chemical and physical relations. After two years' work he published his '*Researches, Chemical and Philosophical, chiefly concerning Nitrous Oxide*.' . . . He wrote, near the end of his essay: 'As nitrous oxide in its extensive operation appears capable of destroying physical pain, it may probably be used with advantage during surgical

operations in which no great effusion of blood takes place.' It seems strange that no one caught at a suggestion such as this. . . . The nitrous oxide might have been of as little general interest as the carbonic or any other, had it not been for the strange and various excitements produced by its inhalation. These made it a favourite subject with chemical lecturers, and year after year, in nearly every chemical theatre, it was fun to inhale it after the lecture on the gaseous compounds of nitrogen; and among those who inhaled it there must have been many who, in their intoxication, received sharp and heavy blows, but, at the time, felt no pain. And this went on for more than forty years, exciting nothing worthy to be called thought or observation, till, in December 1844, Mr. Colton, a popular itinerant lecturer on chemistry, delivered a lecture on 'laughing gas' in Hartford, Connecticut. Among his auditors was Mr. Horace Wells, an enterprising dentist in that town, a man of some power in mechanical invention. After the lecture came the usual amusement of inhaling the gas, and Wells, in whom long wishing had bred a kind of belief that something might be found to make tooth-drawing painless, observed that one of the men excited by the gas was not conscious of hurting himself when he fell on the benches and bruised and cut his knees. Even when he became calm and clear-headed the man was sure that he did not feel pain at the time of his fall. Wells was at once convinced—more easily convinced than a man of more scientific mind would have been—that, during similar insensibility, in a state of intense nervous excitement, teeth might be drawn without pain, and he determined that himself and one of his own largest teeth should be the first for trial. Next morning Colton gave him the gas, and his friend Dr. Riggs extracted his tooth. He remained unconscious for a few moments, and then exclaimed, 'A new era in tooth pulling! It did not hurt me more than the prick of a pin. It is the greatest discovery ever made.' In the next three weeks Wells extracted teeth from some twelve or fifteen persons under the influence of the nitrous oxide, and gave pain to only two or three. Dr. Riggs, also, used it with the same success, and the practice was well known and talked of in Hartford. Encouraged by his success Wells went to Boston, wishing to enlarge the reputation of his discovery and to have an opportunity of giving the gas to some one undergoing a surgical operation. Dr. J. C. Warren, the senior Surgeon of the Massachusetts General Hospital, to whom he applied for this purpose, asked him to show first its effects on some one from whom he would draw a tooth. He undertook to do this in the theatre of the medical college before a large class of students, to whom he had, on a previous day, explained his plan. Unluckily, the bag of gas from which the patient was inhaling was taken away too soon; he cried out when his tooth was drawn; the students hissed and hooted; and the discovery was denounced as an imposture. Wells left Boston disappointed and disheartened; he fell ill, and was for many months unable to practise his profession. Soon afterwards he gave up dentistry, and neglected the use and study of the nitrous oxide, till he was recalled to it by a discovery even more important than his own. The thread of the history of nitrous oxide may be broken here. The inhalation of sulphuric ether was often, even

in the last century, used for the relief of spasmodic asthma, phthisis, and some other diseases of the chest. . . . As the sulphuric ether would 'produce effects very similar to those occasioned by nitrous oxide,' and was much the more easy to procure, it came to be often inhaled, for amusement, by chemist's lads and by pupils in the dispensaries of surgeons. It was often thus used by young people in many places in the United States. They had what they called 'ether-frolics.' . . . Among those who had joined in these ether-frolics was Dr. Wilhite of Anderson, South Carolina. In one of them, in 1839, a negro boy was unconscious so long that he was supposed for some time to be dead. "The fright at having, it was supposed, so nearly killed the boy, put an end to the ether-frolics in that neighbourhood; but in 1842, Wilhite had become a pupil of Dr. Crauford Long, practising at that time at Jefferson (Jackson County, Georgia). Here he and Dr. Long and three fellow-pupils often amused themselves with the ether-inhalation, and Dr. Long observed that when he became furiously excited, as he often did, he was unconscious of the blows which he, by chance, received as he rushed or tumbled about. He observed the same in his pupils; and thinking over this, and emboldened by what Mr. Wilhite told him of the negro-boy recovering after an hour's insensibility, he determined to try whether the ether-inhalation would make any one insensible of the pain of an operation. So, in March, 1842, nearly three years before Wells's observations with the nitrous oxide, he induced a Mr. Venable, who had been very fond of inhaling ether, to inhale it till he was quite insensible. Then he dissected a tumour from his neck; no pain was felt, and no harm followed. Three months later, he similarly removed another tumour from him; and again, in 1842 and in 1845, he operated on other three patients, and none felt pain. His operations were known and talked of in his neighbourhood; but the neighbourhood was only that of an obscure little town; and he did not publish any of his observations. . . . He waited to test the ether more thoroughly in some greater operation than those in which he had yet tried it; and then he would have published his account of it. While he was waiting, others began to stir more actively in hugier places, where his work was quite unknown, not even heard of. Among those with whom, in his unlucky visit to Boston, Wells talked of his use of the nitrous oxide, and of the great discovery which he believed that he had made, were Dr. Morton and Dr. Charles Jackson. . . . Morton was a restless energetic dentist, a rough man, resolute to get practice and make his fortune. Jackson was a quiet scientific gentleman, unpractical and unselfish; in good repute as a chemist, geologist, and mineralogist. At the time of Wells's visit, Morton, who had been his pupil in 1842, and for a short time, in 1843, his partner, was studying medicine and anatomy at the Massachusetts Medical College, and was living in Jackson's house. Neither Morton nor Jackson put much if any faith in Wells's story, and Morton witnessed his failure in the medical theatre. Still, Morton had it in his head that tooth-drawing might somehow be made painless. . . . Jackson had long known, as many others did, of sulphuric ether being inhaled for amusement and of its producing effects like those of nitrous oxide; he knew also of its employment

as a remedy for the irritation caused by inhaling chlorine. He had himself used it for this purpose, and once, in 1842, while using it, he became completely insensible. He had thus been led to think that the pure ether might be used for the prevention of pain in surgical operations; he spoke of it with some scientific friends, and sometimes advised a trial of it; but he did not urge it or take any active steps to promote even the trial. One evening, Morton, who was now in practice as a dentist, called on him, full of some scheme which he did not divulge, and urgent for success in painless tooth-drawing. Jackson advised him to use the ether, and taught him how to use it. On that same evening, the 30th of September, 1846, Morton inhaled the ether, put himself to sleep, and, when he awoke, found that he had been asleep for eight minutes. Instantly, as he tells, he looked for an opportunity of giving it to a patient; and one just then coming in, a stout healthy man, he induced him to inhale, made him quite insensible, and drew his tooth without his having the least consciousness of what was done. But the great step had yet to be made. . . . Could it be right to incur the risk of insensibility long enough and deep enough for a large surgical operation? It was generally believed that in such insensibility there was serious danger to life. Was it really so? Jackson advised Morton to ask Dr. J. C. Warren to let him try, and Warren dared to let him. It is hard, now, to think how bold the enterprise must have seemed to those who were capable of thinking accurately on the facts then known. The first trial was made on the 16th of October, 1846. Morton gave the ether to a patient in the Massachusetts General Hospital, and Dr. Warren removed a tumour from his neck. The result was not complete success; the patient hardly felt the pain of the cutting, but he was aware that the operation was being performed. On the next day, in a severer operation by Dr. Hayward, the success was perfect; the patient felt nothing, and in long insensibility there was no appearance of danger to life. The discovery might already be deemed complete; for the trials of the next following days had the same success, and thence onwards the use of the ether extended over constantly widening fields. . . . It might almost be said that in every place, at least in Europe, where the discovery was promoted more quickly than in America, the month might be named before which all operative surgery was agonising, and after which it was painless."—Sir J. Paget, *Escape from Pain* (Nineteenth Century, Dec. 1879).

19th Century.—The Study of Fermentation and its results.—"It was some time ago the current belief that epidemic diseases generally were propagated by a kind of malaria, which consisted of organic matter in a state of motor-decay; that when such matter was taken into the body through the lungs, skin, or stomach, it had the power of spreading there the destroying process by which itself had been assailed. Such a power was visibly exerted in the case of yeast. A little leaven was seen to leaven the whole lump—a mere speck of matter, in this supposed state of decomposition, being apparently competent to propagate indefinitely its own decay. Why should not a bit of rotten malaria act in a similar manner within the human frame? In 1886 a very wonderful reply was given to this question. In that year Cagniard de la Tour

discovered the yeast-plant—a living organism, which when placed in a proper medium feeds, grows, and reproduces itself, and in this way carries on the process which we name fermentation. By this striking discovery fermentation was connected with organic growth. Schwann, of Berlin, discovered the yeast-plant independently about the same time.”—J. Tyndall, *Fragments of Science*, v. 1, ch. 5.—The question of fermentation “had come to present an entirely new aspect through the discovery of Cagniard de la Tour that yeast is really a plant belonging to one of the lowest types of fungi, which grows and reproduces itself in the fermentable fluid, and whose vegetative action is presumably the cause of that fermentation, just as the development of mould in a jam-pot occasions a like change in the upper stratum of the jam, on whose surface, and at whose expense, it lives and reproduces itself. Chemists generally—especially Liebig, who had a fermentation theory of his own—pooh-poohed this idea altogether; maintaining the presence of the yeast-plant to be a mere concomitant, and refusing to believe that it had any real share in the process. But in 1843, Professor Helmholtz, then a young undistinguished man, devised a method of stopping the passage of organic germs from a fermenting into a fermentable liquid, without checking the passage of fluids; and as no fermentation was then set up, he drew the inference that the ‘particulate’ organic germs, not the soluble material of the yeast, furnish the primum mobile of this change,—a doctrine which, though now universally accepted, had to fight its way for some time against the whole force of chemical authority. A little before Cagniard de la Tour’s discovery, a set of investigations had been made by Schulze and Schwann, to determine whether the exclusion of air was absolutely necessary to prevent the appearance of living organisms in decomposing fluids, or whether these fluids might be kept free from animal or vegetable life, by such means as would presumably destroy any germs which the air admitted to them might bring in from without, such as passing it through a red-hot tube or strong sulphuric acid. These experiments, it should be said, had reference rather to the question of ‘spontaneous generation,’ or ‘abiogenesis,’ than to the cause of fermentation and decomposition; its object being to determine whether the living things found by the microscope in a decomposing liquid exposed to the air, spring from germs brought by the atmosphere, or are generated ‘de novo’ in the act of decay—the latter doctrine having then many upholders. But the discovery of the real nature of yeast, and the recognition of the part it plays in alcoholic fermentation, gave an entirely new value to Schulze’s and Schwann’s results; suggesting that putrefactive and other kinds of decomposition may be really due, not (as formerly supposed) to the action of atmospheric oxygen upon unstable organic compounds, but to a new arrangement of elements brought about by the development of germinal particles deposited from the atmosphere. It was at this point that Pasteur took up the inquiry; and for its subsequent complete working-out, science is mainly indebted to him; for although other investigators—notably Professor Tyndall—have confirmed and extended his conclusions by ingenious variations on his mode of research, they would be the first

to acknowledge that all those main positions which have now gained universal acceptance—save on the part of a few obstinate ‘irreconcilables’—have been established by Pasteur’s own labours. . . . The first application of these doctrines to the study of disease in the living animal was made in a very important investigation, committed to Pasteur by his old master in chemistry (the eminent and eloquent Dumas), into the nature of the ‘pébrine,’ which was threatening to extinguish the whole silk culture of France and Italy. . . . Though it concerned only a humble worm, it laid the foundation of an entirely new system and method of research into the nature and causes of a large class of diseases in man and the higher animals, of which we are now only beginning to see the important issues. Among the most immediately productive of its results, may be accounted the ‘antiseptic surgery’ of Professor Lister; of which the principle is the careful exclusion of living bacteria and other germs, alike from the natural internal cavities of the body, and from such as are formed by disease, whenever these may be laid open by accident, or may have to be opened surgically. This exclusion is effected by the judicious use of carbolic acid, which kills the germs without doing any mischief to the patient; and the saving of lives, of limbs, and of severe suffering, already brought about by this method, constitutes in itself a glorious triumph alike to the scientific elaborator of the germ-doctrine, and to the scientific surgeon by whom it has been thus applied. A far wider range of study, however, soon opened itself. The revival by Dr. Farr of the doctrine of ‘zymosis’ (fermentation),—long ago suggested by the sagacity of Robert Boyle, and practically taken up in the middle of the last century by Sir John Pringle (the most scientific physician of his time),—as the expression of the effect produced in the blood by the introduction of a specific poison (such as that of small-pox, measles, scarlatina, cholera, typhus, &c.), had naturally directed the attention of thoughtful men to the question (often previously raised speculatively), whether these specific poisons are not really organic germs, each kind of which, a real ‘contagium vivum,’ when sown in the circulating fluid, produces a definite ‘zymosis’ of its own, in the course of which the poison is reproduced with large increase, exactly after the manner of yeast in a fermenting wort. Pasteur’s success brought this question to the front, as one not to talk about, but to work at.”—W. B. Carpenter, *Disease-Germs* (Nineteenth Century, Oct., 1881).

ALSO IN: L. Pasteur, *Studies in Fermentation*,—Dr. Duclaux, *Fermentation*

19th Century.—Virchow and Cellular Pathology.—“That really gifted scholar and paragon of industry and attainment, Rudolph Virchow, announced in 1858 a theory known as Modern Vitalism which was borrowed from natural scientific medicine and is distinguished from the vitalism of the previous century in this, that it breaks up the old vital force, which was supposed to be either distributed throughout the entire body, or located in a few organs, into an indefinite number of associate vital forces working harmoniously, and assigns to them all the final elementary principles without microscopic seat. ‘Every animal principle has a sum of vital unities, each of which bears all

the characteristics of life. The characteristics and unity of life cannot be found in any determinate point of a higher organism, e. g., in the brain, but only in the definite, ever recurring arrangements of each element present. Hence it results that the composition of a large body amounts to a kind of social arrangement, in which each one of the movements of individual existence is dependent upon the others, but in such a way that each element has a special activity of its own, and that each, although it receives the impulse to its own activity from other parts, still itself performs its own functions.' This it will be seen is nothing but another way of expressing the cell doctrine to which most medical men are now committed, which means that our bodies are built up with cells, and that each cell has a unity and a purpose of its own. Sir Robert Hooke in 1677 discovered plant cells. Schwann discovered animal cells, and Robert Brown discovered cell nuclei, but it remained for Virchow, using the microscope, to supply the gap which had risen between anatomical knowledge and medical theory, that is, to supply a 'cellular pathology,' since which time the cell has assumed the role which the fibre occupied in the theories of the 17th and 18th centuries. Time alone can decide as to the ultimate validity of these views. This theory was from its announcement most enthusiastically received, and so far has responded to nearly all the requirements which have been made of it. Even its author was almost startled with its success. . . . As a result of Virchow's labors there has arisen in Germany what has been called the medical school of natural sciences of which Virchow is the intellectual father. This school seeks mainly by means of pathological anatomy and microscopy, experimental physiology and pathology, and the other applied sciences, or rather by their methods, to make medicine also an exact science."—Roswell Park, *Lects. on the Hist. of Medicine (in MS.)*.

19th Century.—The development of Bacteriology.—The traditional expression *contagium vivum* received a more precise meaning in 1840 from Henle, who in his 'Pathologischen Untersuchungen,' showed clearly and distinctly that the contagia till then invisible must be regarded as living organisms, and gave his reasons for this view. . . . If we are forced to recognise the characteristic qualities of living beings in these contagia, there is no good reason why we should not regard them as real living beings, parasites. For the only general distinction between their mode of appearance and operation and that of parasites is, that the parasites with which we are acquainted have been seen and the contagia have not. That this may be due to imperfect observation is shown by the experiments on the itch in 1849, in which the contagium, the itch-mite, was almost visible without magnifying power, as long at least misunderstood. It was not long after that the microscopic fungus, *Achorion*, which causes favus, was unexpectedly discovered, as well as the Fungus which gives rise to the infectious disease in the caterpillar of the silkworm known as muscardine. Other and similar cases occurred at a later time, and among them that of the discovery of the *Trichinae* between 1850 and 1860, a very remarkable instance of a contagious parasite long overlooked. Henle repeated his statements in 1853 in his '*Rationelle Pathologie*,' but

for reasons which it is not our business to examine, his views on animal pathology met with little attention or approval. It was in connection with plant-pathology that Henle's views were first destined to further development, and obtained a firmer footing. It is true that the botanists who occupied themselves with the diseases of plants knew nothing of Henle's pathological writings, but made independent efforts to carry on some first attempts which had been made with distinguished success in the beginning of the century. But they did in fact strike upon the path indicated by Henle, and the constant advance made after, about the year 1850, resulted not only in the tracing back of all infectious diseases in plants to parasites as their exciting cause, but in proving that most of the diseases of plants are due to parasitic infection. It may now certainly be admitted that the task was comparatively easy in the vegetable kingdom, partly because the structure of plants makes them more accessible to research, partly because most of the parasites which infect them are true Fungi, and considerably larger than most of the contagia of animal bodies. From this time observers in the domain of animal pathology, partly influenced, more or less, by these discoveries in botany, and partly in consequence of the revival of the vitalistic theory of fermentation by Pasteur about the year 1860, returned to Henle's vitalistic theory of contagion. Henle himself, in the exposition of his views, had already indicated the points of comparison between his own theory and the theory of fermentation founded at that time by Cagniard-Latour and Schwann. Under the influence, as he expressly says, of Pasteur's writings, Davaine recalled to mind the little rods first seen by his teacher, Rayer, in the blood of an animal suffering from anthrax, and actually discovered in them the exciting cause of the disease, which may be taken as a type of an infectious disease both contagious and miasmatic also, in so far as it originates, as has been said, in anthrax-districts. This was, in 1863, a very important confirmation of Henle's theory, inasmuch as a very small parasite, not very easy of observation at that time, was recognised as a contagium. It was some time before much further advance was made. . . . The latest advance to be recorded begins with the participation of Robert Koch in the work of research since 1876."—A. De Bary, *Lectures on Bacteria*, pp. 145-148.—"M. Pasteur is no ordinary man; he is one of the rare individuals who must be described by the term 'genius.' Having commenced his scientific career and attained great distinction as a chemist, M. Pasteur was led by his study of the chemical process of fermentations to give his attention to the phenomena of disease in living bodies resembling fermentations. Owing to a singular and fortunate mental characteristic, he has been able, not simply to pursue a rigid path of investigation dictated by the logical or natural connection of the phenomena investigated, but deliberately to select for inquiry matters of the most profound importance to the community, and to bring his inquiries to a successful practical issue in a large number of instances. Thus he has saved the silkworm industry of France and Italy from destruction, he has taught the French wine-makers to quickly mature their wine, he has effected an enormous improvement

and economy in the manufacture of beer, he has rescued the sheep and cattle of Europe from the fatal disease 'anthrax,' and it is probable—he would not himself assert that it is at present more than probable—that he has rendered hydrophobia a thing of the past. The discoveries made by this remarkable man would have rendered him, had he patented their application and disposed of them according to commercial principles, the richest man in the world. They represent a gain of some millions sterling annually to the community. . . . M. Pasteur's first experiment in relation to hydrophobia was made in December 1880, when he inoculated two rabbits with the mucus from the mouth of a child which had died of that disease. As his inquiries extended he found that it was necessary to establish by means of experiment even the most elementary facts with regard to the disease, for the existing knowledge on the subject was extremely small, and much of what passed for knowledge was only ill-founded tradition."—E. R. Lankester, *The Advancement of Science*, pp. 121-123.—"The development of our knowledge relating to the bacteria, stimulated by the controversy relating to spontaneous generation and by the demonstration that various processes of fermentation and putrefaction are due to microorganisms of this class, has depended largely upon improvements in methods of research. Among the most important points in the development of bacteriological technique we may mention, first, the use of a cotton air filter (Schröder and Von Dusch, 1854); second, the sterilization of culture fluids by heat (methods perfected by Pasteur, Koch, and others); third, the use of the aniline dyes as staining agents (first recommended by Weigert in 1877); fourth, the introduction of solid culture media and the 'plate method' for obtaining pure cultures, by Koch in 1881. The various improvements in methods of research, and especially the introduction of solid culture media and Koch's 'plate method' for isolating bacteria from mixed cultures, have placed bacteriology upon a scientific basis. . . . It was a distinguished French physician, Davaine, who first demonstrated the etiological relation of a microorganism of this class to a specific infectious disease. The anthrax bacillus had been seen in the blood of animals dying from this disease by Pollender in 1849, and by Davaine in 1850, but it was several years later (1863) before the last-named observer claimed to have demonstrated by inoculation experiments the causal relation of the bacillus to the disease in question. The experiments of Davaine were not generally accepted as conclusive, because in inoculating an animal with blood containing the bacillus, from an infected animal which had succumbed to the disease, the living microorganism was associated with material from the body of the diseased animal. This objection was subsequently removed by the experiments of Pasteur, Koch, and many others, with pure cultures of the bacillus, which were shown to have the same pathogenic effects as had been obtained in inoculation experiments with the blood of an infected animal."—G. M. Sternberg, *Manual of Bacteriology*, p. 6.—"In 1876 the eminent microscopist, Professor Cohn, of Breslau, was in London, and he then handed me a number of his 'Beiträge,' containing a memoir by Dr. Koch on Splenic Fever (Milzbrand, Charbon, Malignant

Pustule), which seemed to me to mark an epoch in the history of this formidable disease. With admirable patience, skill, and penetration Koch followed up the life-history of bacillus anthracis, the contagium of this fever. At the time here referred to he was a young physician holding a small appointment in the neighbourhood of Breslau, and it was easy to predict, and indeed I predicted at the time, that he would soon find himself in a higher position. When I next heard of him he was head of the Imperial Sanitary Institute of Berlin. . . . Koch was not the discoverer of the parasite of splenic fever. Davaine and Rayer, in 1850, had observed the little microscopic rods in the blood of animals which had died of splenic fever. But they were quite unconscious of the significance of their observation, and for thirteen years, as M. Radot informs us, strangely let the matter drop. In 1863 Davaine's attention was again directed to the subject by the researches of Pasteur, and he then pronounced the parasite to be the cause of the fever. He was opposed by some of his fellow countrymen; long discussions followed, and a second period of thirteen years, ending with the publication of Koch's paper, elapsed before M. Pasteur took up the question. I always, indeed, assumed that from the paper of the learned German came the impulse towards a line of inquiry in which M. Pasteur has achieved such splendid results."—J. Tyndall, *New Fragments*, pp. 190-191.—"On the 24th of March, 1882, an address of very serious public import was delivered by Dr. Koch before the Physiological Society of Berlin. . . . The address . . . is entitled 'The Etiology of Tubercular Disease.' Koch first made himself known, and famous, by the penetration, skill, and thoroughness of his researches on the contagium of anthrax, or splenic fever. . . . Koch's last inquiry deals with a disease which, in point of mortality, stands at the head of them all. 'If,' he says, 'the seriousness of a malady be measured by the number of its victims, then the most dreaded pests which have hitherto ravaged the world—plague and cholera included—must stand far behind the one now under consideration.' Then follows the startling statement that one-seventh of the deaths of the human race are due to tubercular disease. Prior to Koch it had been placed beyond doubt that the disease was communicable; and the aim of the Berlin physician has been to determine the precise character of the contagium which previous experiments on inoculation and inhalation had proved to be capable of indefinite transfer and reproduction. He subjected the diseased organs of a great number of men and animals to microscopic examination, and found, in all cases, the tubercles infested by a minute, rod-shaped parasite, which by means of a special dye, he differentiated from the surrounding tissue. 'It was,' he says, 'in the highest degree impressive to observe in the centre of the tubercle-cell the minute organism which had created it.' Transferring directly, by inoculation, the tuberculous matter from diseased animals to healthy ones, he in every instance reproduced the disease. To meet the objection that it was not the parasite itself, but some virus in which it was imbedded in the diseased organ, that was the real contagium, he cultivated his bacilli artificially for long periods of time and through many successive generations.

With a speck of matter, for example, from a tuberculous human lung, he infected a substance prepared, after much trial, by himself, with the view of affording nutriment to the parasite. In this medium he permitted it to grow and multiply. From the new generation he took a minute sample, and infected therewith fresh nutritive matter, thus producing another brood. Generation after generation of bacilli were developed in this way, without the intervention of disease. At the end of the process, which sometimes embraced successive cultivations extending over half a year, the purified bacilli were introduced into the circulation of healthy animals of various kinds. In every case inoculation was followed by the reproduction and spread of the parasite, and the generation of the original disease. . . . The moral of these experiments is obvious. In no other conceivable way than that pursued by Koch could the true character of the most destructive malady by which humanity is now assailed be determined. And however noisy the fanaticism of the moment may be, the common-sense of Englishmen will not, in the long run, permit it to enact cruelty in the name of tenderness, or to debar us from the light and leading of such investigations as that which is here so imperfectly described."—J. Tyndall, *New Fragments*, pp. 423-428.

19th Century.—The Theory of Germ Diseases.—"An account of the innumerable questions and investigations in this department of modern pathogenesis, of the various views on certain questions, etc., does not fall within the compass of our brief sketch. Nor are we able to furnish a consistent theory, simply because such an one does not [1889] exist. One fact alone is agreed upon, to wit, that certain of the lower fungi, as parasites within or upon the body, excite diseases (infectious diseases). As regards the *modus operandi* of these parasites two main theories are held. According to one theory, these parasites, by their development, deprive the body of its nutriment and endanger life particularly when, thronging in the blood, they deprive this of the oxygen necessary for existence. According to the other theory, they threaten life by occasioning decompositions which engender putrid poisons (ptomaines). These latter poisons were first isolated by P. L. Pagan in 1856, and have been recently specially studied by Brieger (Ueber Ptomaine, Berlin, 1885-86). They act differently upon bodies according to the variety of the alkaloidal poison. Metschnikoff regards the white blood-corpuscles as antagonists of these parasites (thus explaining the cases of recovery from parasitic diseases), and in this point of view calls them 'phagocytes.' On the other hand E. Salmon and Theodore Smith ('Transactions of the Washington Biological Society, Feb. 22d, 1886) were the first to demonstrate that sterilized nutritive solutions of germ-free products of change of matter of the virulent exciters of disease, when injected, afford protection. A. Chauveau as early as 1880 had brought forward evidence of the probability of this fact, and Hans Buchner in 1879 admitted the possibility of depriving bacteria of their virulence. Pasteur, however, believes he has demonstrated that by continued cultures (also a sort of bacillary isopathy) 'debilitated' germs act as prophylactics against the corresponding parasitic diseases, and he even thinks he has con-

firmed this by his inoculations against hydrophobia.—a view, at all events, still open to doubt. . . . The chief diseases regarded as of parasitic origin at present are: anthrax (Davaine, 1850); relapsing fever (Obermeier, 1873); gonorrhœa and blenorhœa neonatorum (Neisser, 1879); glanders (Struck, 1882, Loeffler and Schütz); syphilis (Sigm. Lustgarten, 1884); diphtheria (Oertel, Letzerich, Klebs); typhus (Eberle, Klebs); tuberculosis (Koch, 1882); cholera (Koch, 1884); lepra (Armauer-Hansen); actinomycosis (Bollinger in cattle, 1877; Israel in man, 1884); septicæmia (Klebs); erysipelas (Fehleisen); pneumonia (Friedländer); malarial fever (Klebs, Tommasi-Crudeli, Marchiafava); malignant œdema (Koch); tetanus (Carle and Rattone, Nicolaier, Roeschlaub assumed a tetania occasioned by bacilli); cancer (Scheuerlen; priority contested by Dr. G. Rappia and Prof. Domingo Freire of Rio Janeiro); yellow fever (microbe claimed to have been discovered by Freire); dysentery (bacillary diphtheritis of the large intestine); cholera nostras (Finkler and Prior); scarlet fever (Coze and Feltz, '72); variola and vaccina (Keber, Zülzer, Weigert Klebs); acute yellow atrophy of the liver (Klebs, Waldeyer, Eppinger); endocarditis (Ziegler); hæmophilia neonatorum (Klebs, Eppinger); trachoma (Sattler); keratitis (Leber—aspergillus); ulcus rodens corneæ (Sattler); gonorrhœal rheumatism (Petrone, Kammerer). If the bacterial theory of infection, constantly threatening life by such numerous pathogenic varieties of infecting organisms, must be looked upon as a gloomy one, the anti-bacterial Phagocyte Theory of Metschnikoff, professor of zoology in Odessa, is adapted to make one feel more comfortable, inasmuch as it brings into view the possibility of an antagonism to these infecting organisms, and explains the method of nature's cures. Metschnikoff observed that the wandering cells—the white blood corpuscles—after the manner of amœbæ, surround, hold fast, digest ('devour,' hence 'phagocytes'), and thus render harmless the bacteria which have entered the body. . . . The prophylactic effects of inoculation are explained on the theory that by means of this operation the wandering cells are prepared, as it were, for subsequent accidental irruptions of similar pathogenic bacteria, are habituated or compelled thereby to at once devour such organisms when they enter the body spontaneously, and thus to render them harmless. Inoculation would thus be a sort of training or education of the phagocytes. The immunity of many persons from infectious diseases, so far as it is not effected by inoculations, would by analogy be explained on the theory that with such individuals the phagocytes are from the outset so constituted that they at once render harmless any stray bacteria which come within their domain by immediately devouring them. . . . When . . . in spite of the phagocytes, the patients die of infectious diseases, the fact is to be explained by the excessive number of the bacteria present, which is so great that the phagocytes are unequal to the task of 'devouring' them all."—J. H. Baas, *Outlines of the History of Medicine*, pp. 1007-1009.

19th Century.—Sanitary Science and Legislation.—"Together with the growth of our knowledge of the causes of disease there has been . . . slowly growing up also a new kind of warfare against disease. It is this science

of hygiene which is now promising to transform all the old traditional ways of dealing with disease, and which now makes possible the organization of the conditions of health. And this science of hygiene, it must be repeated, rests on the exact knowledge of the causes of disease which we are now obtaining. . . . At the beginning of the eighteenth century Mead, a famous physician of that day, whose reputation still lives, had proposed the formation of a central board of health to organise common measures for the public safety. It was not, however, until more than a hundred years later, in 1831, under the influence of the terror of cholera, that this first step was taken; so that, as it has been well said and often since proved, 'panic is the parent of sanitation.' In 1842 Sir Edwin Chadwick issued his report on 'The Sanitary Condition of the Labouring Population of Great Britain.' This report produced marked effect, and may truly be said to have inaugurated the new era of collective action, embodying itself in legislation directed to the preservation of national health, an era which is thus just half a century old. Chadwick's report led to a Royal Commission, which was the first step in the elevation of public health to a State interest; and a few years later (1847) Liverpool, and immediately afterwards London, appointed the first medical officers of health in Great Britain. In 1848 another epidemic of cholera appeared, and a General Board of Health was established. During this epidemic Dr. Snow began those inquiries which led to the discovery that the spread of the disease was due to the contamination of drinking-water by the intestinal discharges of patients. That discovery marked the first great stage in the new movement. Henceforth the objects to be striven for in the evolution of sanitation became ever more clear and precise, and a succession of notable discoveries in connection with various epidemics enlarged the sphere of sanitation, and revealed new possibilities in the prevention of human misery."—H. Ellis, *The Nationalisation of Health*, pp. 21-24.—"Of all countries of the civilized world, none has a sanitary code so complete and so precise as England. In addition, English legislation is distinguished from that of other countries, by the fact that the principal regulations emanate from Parliament instead of being simple administrative orders. Thus the legislation is the work of the nation, which has recognised its necessity in its own interest. Consequently the laws are respected, and, as a rule, religiously observed, without objection or murmur. In the whole country, the marvellous results which have been produced can be seen. Thanks to these laws, the rate of mortality has been lowered, the mean duration of life increased, the amount of sickness decreased. They have greatly alleviated the misery in the houses of the poor, who, thanks to sanitary measures, have a better prospect of recovering their health and the means of providing for their subsistence and that of their families. . . . The sanitary administration of England is, in accordance with the Public Health Act of 1875, in the hands of a central authority, the Local Government Board; and local authorities, the Local Boards of Health. The Local Government Board consists of a president, nominated by the Queen, and the following ex-officio members:—the Lord President of the

Privy Council, all the principal Secretaries of State for the time being, the Lord Privy Seal, the Chancellor of the Exchequer, a Parliamentary Secretary, and a permanent Secretary. The President and Secretaries are, properly speaking, the directors of the Local Government Board, the other members being only consulted on matters of prime importance. Nine special departments are controlled by the Local Government Board: 1. Poor-law administration. 2. Legal questions. 3. Sanitary regulations respecting buildings. 4. Sanitary regulations respecting sewers, streets, etc. 5. Medical and hygienic matters. 6. Vaccination. 7. The Hygiene of factories. 8. The water supply of London. 9. Statistics. Medical and sanitary matters are under the direction of a Medical Officer, and an Assistant Medical Officer."—A. Palmberg, *Treatise on Public Health: England*, ch. 1.—"The United States have no uniform legislation for the organization of public hygiene to the present day. Each State organizes this service as it chooses. . . . That which characterizes the sanitary organization of the States is the fact that, in a large number of States, the right is granted to the sanitary administrations to carry before the justices the infractions of the regulations on this subject. It is a similar organization to that of Great Britain, with a little less independence, and it is the logical result of the general system of administration which exists in the American Union. . . . Without doubt the day will come when the National Board of Health will be by act of Congress, with the consent of all the States, the real superior council of public hygiene of the American Union."—E. Sève, *On the General Organization of Public Hygiene (Proceedings, Internat'l Sanitary Conference, 1881)*.—"The General Government [of the United States] can do little in the way of compulsory legislation, which might interfere with the action of the several States to control their own sanitary affairs. It is possible that upon the ground of power to legislate with regard to commerce, it might establish some general system of quarantine and do something toward the prevention of the pollution of navigable streams; but it could probably only do this with such restrictions and exceptions as would make its action of little practical value, unless, indeed, it should resort to its right of eminent domain, and become liable for all damages, individual or municipal, which its action might cause. . . . No one would deny that the General Government can properly create an organization for the purpose of collecting and diffusing information on sanitary matters; but comparatively few understand how much real power and influence such an organization might acquire without having the slightest legal authority to enforce any of its recommendations. The passing of sanitary laws, and the granting to a certain department the power to enforce these laws, will not ensure good public health, unless the public at large supports those laws intelligently, and it can only do this through State and municipal sanitary organizations. The General Government might do much to promote the formation of such organizations, and to assist them in various ways. . . . By the 'act to prevent the introduction of infectious or contagious diseases into the United States, and to establish a national board of health,' approved March 3, 1879, the first step has been taken in

the direction above indicated. The act provides for a national board of health, to consist of seven members, appointed by the President, and of four officers detailed from the Medical Department of the Army, Medical Department of the Navy, and the Marine Hospital Service, and the Department of Justice respectively. No definite term of office is prescribed, the Board being essentially provisional in character. The duties of the board are 'to obtain information upon all matters affecting the public health, to advise the several departments of the government, the executives of the several States, and the Commissioners of the District of Columbia, on all ques-

MEDICI, The. See FLORENCE: A. D. 1378-1427, and after.

MEDINA: the City of the Prophet.—By Mahomet's Hegira or flight from Mecca to Yethrib, A. D. 622, the latter city became the seat of Islam and was henceforward known as Medina—Medinet-en-Neby—"the City of the Prophet."—S. Lane-Poole, *Studies in a Mosque*, ch. 2.—See MAHOMETAN CONQUEST: A. D. 609-632.

A. D. 661.—The Caliphate transferred. See MAHOMETAN CONQUEST: A. D. 661.

A. D. 683.—Stormed and sacked.—In the civil war which followed the accession of Yezid, the second of the Omeyyad caliphs, Medina was besieged and stormed by Yezid's army and given up for three days to every imaginable brutality on the part of the soldiery. The inhabitants who survived were made slaves.—Sir W. Muir, *Annals of the Early Caliphate*, ch. 50.

ALSO IN: W. Irving, *Mahomet and his Successors*, v. 2, ch. 47.—See MAHOMETAN CONQUEST: A. D. 715-750.

MEDINA DEL RIO SECO, Battle of. See SPAIN: A. D. 1808 (MAY—SEPTEMBER).

MEDIOLANUM.—Modern Milan. Taken by the Romans in 222 B. C. from the Insubrian Gauls. See ROME: B. C. 295-191.

MEDIOMATRICI.—The original form of the name of the city of Metz, which had been called Divodurum by the Gauls at an earlier day.

MEDISM.—MEDIZED GREEKS.—During the wars of the Persians against the Greeks, the former had many friends and allies, both secret and open, among the latter. These were commonly called Medized Greeks, and their treason went by the name of Medism.

MEDITERRANEAN FUND. A special fund provided by the United States Congress, in 1803, for the War with Tripoli.—H. Adams, *Hist. of the U. S.* v. 2, ch. 7.

MEDITERRANEAN SEA: When named.—"For this sea . . . the Greeks had no distinctive name, because it had so long been practically the only one known to them; and Strabo can only distinguish it as 'the Inner' or 'Our' Sea. . . . The now familiar appellation of Mediterranean is in like manner first used by Solinus [third century], only as a convenient designation, not as a strictly geographical term. . . . The first extant author who employs it distinctly as a proper name is Isidorus, who wrote in the seventh century."—E. H. Bunbury, *Hist. of Ancient Geog.*, ch. 21, sect. 1, ch. 23, sect. 2, foot-note, ch. 31 (v. 2).

MEERUT, The Sepoy mutiny at. See INDIA: A. D. 1857 (MAY).

tions submitted by them, or whenever in the opinion of the board such advice may tend to the preservation and improvement of the public health."—J. W. Billings, *Introd. to "A Treatise on Hygiene and Public Health," ed. by A. H. Buck.*

ALSO IN: Sir J. Simon, *English Sanitary Institutions.*—The same, *Public Health: Reports of the Medical Officer of the Privy Council and Local Gov't Board.*—United States National Board of Health, *Annual Reports.*—Massachusetts Board of Health, *Annual Reports.*

A. D. 1842-1892.—Women in the Medical Profession. See WOMAN'S RIGHTS: A. D. 1842-1892.

MEGALESIA, The. See LUDI.

MEGALOPOLIS: B. C. 371.—The founding of the city. See GREECE: B. C. 371.

B. C. 317.—Defense against Polysperchon. See GREECE: B. C. 321-312.

B. C. 222.—Destruction and restoration.—The last exploit of Cleomenes of Sparta, in his struggle with the Achæan League and its ally, the king of Macedonia, before the fatal field of Sellasia, was the capture of Megalopolis, B. C. 222. Most of the citizens escaped. He offered to restore their town to them if they would forsake the League. They refused, and he destroyed it, so utterly that its restoration was believed to be impossible. But in the following year the inhabitants were brought back and Megalopolis existed again, though never with its former importance.—Polybius, *Histories*, bk. 2, ch. 55 and after (v. 1).

B. C. 194-183.—In the Achæan League.—"The city of Megalopolis held at this time [B. C. 194-183] the same sort of position in the Achæan League which the State of Virginia held in the first days of the American Union. Without any sort of legal preëminence, without at all assuming the character of a capital, Megalopolis was clearly the first city of the League, the city which gave the nation the largest proportion of its leading statesmen. Megalopolis, like Virginia, was 'the Mother of Presidents,' and that too of Presidents of different political parties. As Virginia produced both Washington and Jefferson, so Megalopolis, if she produced Philopoimen and Lykortas, produced also Aristainos and Diophanes."—E. A. Freeman, *Hist. of Federal Gov't*, ch. 9, sect. 2.

MEGARA.—Megara, the ancient Greek city and state whose territory lay between Attica and Corinth, forming part of the Corinthian isthmus, "is affirmed to have been originally settled by the Dorians of Corinth, and to have remained for some time a dependency of that city. It is farther said to have been at first merely one of five separate villages—Megara, Heræa, Peiræa, Kynosura, Tripodiskus—inhabited by a kindred population, and generally on friendly terms, yet sometimes distracted by quarrels [see CORINTH: B. C. 745-725]. . . . Whatever may be the truth respecting this alleged early subjection of Megara, we know it in the historical age, and that too as early as the 14th Olympiad, only as an independent Dorian city, maintaining the integrity of its territory under its leader Orsippus, the famous Olympic runner, against some powerful enemies, probably the Corinthians. It was of no mean consideration, possessing a territory which

extended across Mount Geraneia to the Corinthian Gulf, on which the fortified town and port of Pégæ, belonging to the Megarians, was situated. It was mother of early and distant colonies,—and competent, during the time of Solon, to carry on a protracted contest with the Athenians, for the possession of Salamis; wherein, although the latter were at last victorious, it was not without an intermediate period of ill success and despair.”—G. Grote, *Hist. of Greece*, pt. 2, ch. 9.—See, also, GREECE: THE MIGRATIONS.

B. C. 610-600.—Struggle with Athens for Salamis.—Spartan arbitration favorable to the Athenians. See ATHENS: B. C. 610-586.

B. C. 458-456.—Alliance with Athens in war with Corinth and Ægina. See GREECE: B. C. 458-456.

B. C. 446-445.—Rising against Athens. See GREECE: B. C. 449-445.

B. C. 431-424.—Athenian invasions and ravages. See ATHENS: B. C. 431.

B. C. 339-338.—Resistance to Philip of Macedon. See GREECE: B. C. 357-336.

MEGARA OF CARTHAGE, The. See CARTHAGE: DIVISIONS.

MEGIDDO.—The valley of Megiddo, forming the western part of the great Plain of Esdraelon, in northern Palestine—stretching from the valley of the Jordan to the Mediterranean Sea, along the course of the river Kishon—was so often the meeting place of ancient armies that it seems to have come to be looked upon as the typical battle-ground, and apparently the name Armageddon in Revelation is an allusion to it in that sense. The ancient city of Megiddo has been identified in site with the present town of Ladjûn, which is the Legio of the Romans—the station of a Roman legion.

MEGISTANES, The.—“The king [of the Parthian monarchy] was permanently advised by two councils, consisting of persons not of his own nomination, whom rights, conferred by birth or office, entitled to their seats. One of these was a family conclave, . . . or assembly of the full-grown males of the Royal House; the other was a senate comprising both the spiritual and the temporal chiefs of the nation, the Sophi, or ‘Wise Men,’ and the Magi, or ‘Priests.’ Together these two bodies constituted the Megistanes, the ‘Nobles’ or ‘Great Men.’”—G. Rawlinson, *Sixth Great Oriental Monarchy*, ch. 6.

MEHDI, Al. See MAHDI, AL.

MEHEMET ALI AND THE INDEPENDENT PASHALIK OF EGYPT. See TURKS: A. D. 1831-1840; and EGYPT: A. D. 1840-1869.

MEHERRINS, The. See AMERICAN ABORIGINES: IROQUOIS TRIBES OF THE SOUTH.

MEIGS, Fort, Sieges of. See UNITED STATES OF AM.: A. D. 1812-1813.

MELANESIA.—“Under the name of Melanesia, we comprehend all the islands and groups of islands stretching from New Guinea in the west to Viti or Fiji in the east; that is to say, the domain chiefly occupied by the Papuan race. The series begins with the still but little explored New Guinea, with its surrounding islands; and the Admiralty Isles, New Britain, and New Ireland, to the north-east. Proceeding still eastwards, or rather to the south-east, we meet with the Solomon Islands, the Santa Cruz or Queen Charlotte group, the New Hebrides, the French

settlements of New Caledonia and the Loyalty Islands, and lastly, considerably farther east, the Fiji Archipelago.”—A. R. Wallace, *Australasia (Stanford's Compendium)*, ch. 22.—The Solomon Islands, the Santa Cruz group, and the northern New Hebrides were discovered by Spanish navigators between 1567 and 1606. The French voyager Bougainville added some discoveries in 1768, which were carried farther by Captain Cook in 1774. Between these explorations and the visits of whalers and missionaries in the present century there is every reason, says Dr. Coddington, “to believe that all memory and tradition of white men had died away in the Solomon Islands and Santa Cruz.”—R. H. Coddington, *The Melanesians*, pp. 1-10.—The northerly Solomon Islands are controlled by Germany, the southerly by Great Britain. A German protectorate was declared in 1884 over the New Britain and New Ireland groups and several adjacent islands, which were then re-named the Bismarck Archipelago. The Admiralty Islands have also been taken by Germany. New Caledonia, the Loyalty Islands, and the New Hebrides belong to France, the former being a penal colony.

MELBOURNE MINISTRIES, The. See ENGLAND: A. D. 1834-1837; and 1841-1842.

MELCHITES.—A name applied in the religious controversies of the 6th century, by the heretical Jacobites, to the adherents of the orthodox church.—H. F. Tozer, *The Church and the Eastern Empire*, ch. 5.

MELIAN FAMINE. See GREECE: B. C. 416.

MELIGNANO, OR MARIGNANO, Battle of. See FRANCE: A. D. 1515.

MELISCEET INDIANS, The. See AMERICAN ABORIGINES: ALGONQUIAN FAMILY.

MELORIA, Battles of (1241 and 1284). See PISA: A. D. 1063-1293.

MELOS: Siege, conquest and massacre by the Athenians. See GREECE: B. C. 416.

MELUN, Siege of.—One of the important sieges in the second campaign of the English king Henry V. in France, A. D. 1420.—Monstrelet, *Chronicles*, bk. 1, ch. 226-230 (v. 1).

MEMLUKS. See MAMLUKES.

MEMPHIS, Egypt.—“The foundation of Memphis is the first event in Egyptian history, the one large historical incident in the reign of the first king, who emerges a real man from the shadowland which the Egyptians called the reign of the gods. . . . Menes, the founder of Memphis and Egyptian history, came from the south. Civilisation descended the Nile. His native place was Thinis, or This, in Upper Egypt, a still older town, where his shadowy predecessors ruled. . . . A great engineering work was the first act of the builder. He chose his site . . . but the stream was on the wrong side, flowing below the Libyan chain, flowing over where the city should be, offering no water, bulwark against the invader from the eastern border. So he raised, a few miles to the south, a mighty dyke, and turned the river into the present course, founding the city on the west bank, with the desert behind and the Nile before. . . . The new city received a name which reflects the satisfaction of the ancient founder; he called it Mennufre, ‘the Good’ or ‘Perfect Mansion.’ This was the civil name. . . . The civil name is

MEMPHIS.

the parent of the Greek Memphis and the Hebrew Mophi, also found in the form Noph."—R. S. Poole, *Cities of Egypt*, ch. 2.—See, also, EGYPT: THE OLD EMPIRE AND THE MIDDLE EMPIRE.

A. D. 640-641.—Surrender to the Moslems. See MAHOMETAN CONQUEST: A. D. 640-646.

MEMPHIS, Tenn.: A. D. 1739-1740.—A French fort on the site. See LOUISIANA: A. D. 1719-1750.

A. D. 1862.—Naval fight in the river.—Surrender of the city to the Union forces. See UNITED STATES OF AM.: A. D. 1862 (JUNE: ON THE MISSISSIPPI).

MENAPII, The. See BELGÆ; also, IRELAND: TRIBES OF EARLY CELTIC INHABITANTS.

MENDICANT ORDERS.—Franciscans.

—Dominicans.—"This period [12-13th centuries], so prolific in institutions of every sort, also gave birth to the Mendicant orders, a species of spiritual chivalry still more generous and heroic than that which we have just treated [the military-religious orders], and unique in history. . . . Many causes combined to call them into existence. In proportion as the Church grew wealthy her discipline relaxed, and dangers menaced her on every side. . . . The problem thus presented to the Church was taken up at the opening of the 13th century, and thrown into practical shape by two men equally eminent in intellectual endowments and spiritual gifts. While each solved it in his own way, they were both attached to each other by the closest friendship. Dominic, a member of the powerful house of Guzman, was born in the year 1170, at Callaruega (Calahorra, in Old Castile), a village in the diocese of Osma. While pursuing his studies in the university of Valencia, he was distinguished by a spirit of charity and self-sacrifice. . . . Diego, Bishop of Osma, . . . a man of severe character, and ardently devoted to the good of the Church, found in Dominic one after his own heart. He took the young priest with him on a mission which he made to the south of France." Dominic was finally left in charge of the mission. "His peaceful disposition, his spirit of prayer, his charity, forbearance, and patient temper formed a consoling contrast to the bloody crusade which had recently been set on foot against the Albigenses. After spending ten years in this toilsome and thankless mission, labouring only for love of God and the profit of souls, he set out for Rome, in 1215, with his plans fully matured, and submitted to Pope Innocent III. the project of giving to the Church a new method of defence, in an order which should combine the contemplative life of the monk with the active career of a secular priest. . . . Innocent gave his sanction to Dominic's project, provided he would manage to bring it under some of the existing Rules. Dominic accordingly selected the Rule of St. Augustine, introducing a few changes, with a view to greater severity, taken from the Rule of the Premonstratensians. That the members of the new order might be free to devote themselves entirely to their spiritual labours, they were forbidden to accept any property requiring their active administration, but were permitted to receive the incomes of such as was administered by others. Property, therefore, might be held by the Order as a body, but not administered by

MENDICANT ORDERS.

its members. Pope Honorius III. confirmed the action of his illustrious predecessor, and approved the Order in the following year, giving it, from its object, the name of the 'Order of Friars Preachers' ('Ordo Prædicatorum, Fratres Prædicatores'). . . . Dominic founded, in the year 1206, an Order of Dominican nuns. . . . The dress of the Dominicans is a white garment and scapular, resembling in form that of the Augustinians, with a black cloak and a pointed cap. Francis of Assisi, the son of a wealthy merchant named Bernardini, was born in the year 1182, in Assisi, in Umbria. His baptismal name was John, but from his habit of reading the romances of the Troubadours in his youth, he gradually acquired the name of Il Francesco, or the Little Frenchman. . . . When about twenty-four years of age, he fell dangerously ill, and, while suffering from this attack, gave himself up to a train of religious thought which led him to consider the emptiness and uselessness of his past life. . . . He . . . conceived the idea of founding a society whose members should go about through the whole world, after the manner of the apostles, preaching and exhorting to penance. . . . His zeal gradually excited emulation, and prompted others to aspire after the same perfection. His first associates were his townsmen, Bernard Quintavalle and Peter Cattano, and others soon followed. Their habit consisted of a long brown tunic of coarse woollen cloth, surmounted by a hood of the same material, and confined about the waist with a hempen cord. This simple but ennobling dress was selected because it was that of the poor peasants of the surrounding country. . . . He sent his companions, two-and-two, in all directions, saying to them in taking leave: 'Go; always travel two-and-two. Pray until the third hour; then only may you speak. Let your speech be simple and humble.' . . . With St. Francis, absolute poverty was not only a practice, it was the essential principle on which he based his Order. Not only were the individual members forbidden to have any personal property whatever, but neither could they hold any as an Order, and were entirely dependent for their support upon alms. . . . Hence the chief difference between mendicant and other monastic orders consists in this, that, in the former, begging takes the place of the ordinary vow of personal poverty. . . . In 1223, Pope Honorius III. approved the Order of Franciscans (Fratres Minores), to which . . . Innocent III. had given a verbal sanction in 1210."—J. Alzog, *Manual of Univ. Church Hist.*, sect. 247 (v. 2).—"They were called 'Friars' because, out of humility, their founders would not have them called 'Father' and 'Dominus,' like the monks, but simply 'Brother' ('Frater,' 'Frère,' Friar). . . . Dominic gave to his order the name of Preaching Friars; more commonly they were styled Dominicans, or, from the colour of their habits, Black Friars. . . . The Franciscans were styled by their founder 'Fratres Minori'—lesser brothers, Friars Minors; they were more usually called Grey Friars, from the colour of their habits, or Cordeliers, from the knotted cord which formed their characteristic girdle."—E. L. Outts, *Scenes and Characters of the Middle Ages*, ch. 5.—"People talk of 'Monks and Friars' as if these were convertible terms. The truth is that the difference between the Monks and the Friars was

MENDICANT ORDERS.

almost one of kind. The Monk was supposed never to leave his cloister. The Friar in St. Francis's first intention had no cloister to leave."—A. Jessopp, *The Coming of the Friars*, 1.

Also in: Mrs. Oliphant, *Life of St. Francis of Assisi*—H. L. Lacordaire, *Life of St. Dominic*.

—E. F. Henderson, *Select Historical Documents of the Middle Ages*, bk. 3, no. 8.—P. Sabatier, *Life of St. Francis of Assisi*.

MENENDEZ'S MASSACRE OF FLORIDA HUGUENOTS. See FLORIDA · A. D. 1565.

MENHIR.—Meaning literally "long-stone." The name is usually given to single, upright stones, sometimes very large, which are found in the British islands, France and elsewhere, and which are supposed to be the rude sepulchral monuments of some of the earlier races, Celtic and pre-Celtic.—Sir J. Lubbock, *Prehistoric Times*, ch. 5.

MENNONITES, The.—"The Mennonites take their name from Menno Simons, born in Witmarsum, Holland, in 1492. He entered the priesthood of the Roman Catholic Church; . . . renounced Catholicism early in 1536, and was baptized at Leeuwarden. In the course of the following year he was ordained a minister in what was then known as the Old Evangelical or Waldensian Church. From this time on to his death, in 1559, he was active, . . . traveling through northern Germany, and preaching everywhere. The churches which he organized as a result of his labors rejected infant baptism and held to the principle of non-resistance. A severe persecution began to make itself felt against his followers, the Mennonites; and, having heard accounts of the colony established in the New World by William Penn, they began to emigrate to Pennsylvania near the close of the 17th century. . . . Successive immigrations from Holland, Switzerland, Germany, and, in the last twenty-five years, from southern Russia, have resulted in placing the great majority of Mennonites in the world on American soil, in the United States and Canada."—H. K. Carroll, *The Religious Forces of the U. S.*, ch. 28.

MENOMINEES, The. See AMERICAN AB-ORIGINES: ALGONQUIAN FAMILY.

MENTANA, Battle of (1867). See ITALY: A. D. 1867-1870.

MENTZ: Origin. See MOGONTIACUM.

A. D. 406.—Destruction by the Germans. See GAUL: A. D. 406-409.

12th Century.—Origin of the electorate. See GERMANY: A. D. 1125-1272.

A. D. 1455-1456.—Appearance of the first printed book. See PRINTING: A. D. 1430-1456.

A. D. 1631.—Occupied by Gustavus Adolphus of Sweden. See GERMANY: A. D. 1631-1632.

A. D. 1792.—Incorporation with the French Republic. See FRANCE: A. D. 1792 (SEPTEMBER—DECEMBER).

A. D. 1793.—Recovery by the Germans. See FRANCE: A. D. 1793 (JULY—DECEMBER).

A. D. 1801-1803.—Extinction of the electorate. See GERMANY: A. D. 1801-1803.

MENTZ, Treaty of (1621). See GERMANY: A. D. 1621-1623.

MENZEL PAPERS, The. See GERMANY: A. D. 1755-1756; and 1756.

MERCY FOR THE REDEMPTION.

MERCED, The order of La.—An order of knighthood founded by King Jayme, of Aragon, especially for the collecting of money with which to ransom captives from the Moors.

MERCENARIES, Revolt of the. See CARTHAGE: B. C. 241-238.

MERCHANT ADVENTURERS.—"The original Company of the Merchant Adventurers carried on trade chiefly with the Netherlands. . . . In distinction from the staplers, who dealt in certain raw materials, the Merchant Adventurers had the monopoly of exporting certain manufactured articles, especially cloths. Though of national importance, they constituted a strictly private company, and not, like the staplers, an administrative organ of the British government. The former were all subjects of the English crown; the staplers were made up of aliens as well as Englishmen. . . . To carry on foreign trade freely in wool as well as in cloth, a merchant had to join both companies. The earliest charter granted to it as an organized association dates from the year 1407. Their powers were greatly increased by Henry VII. The soul of this society, and perhaps its original nucleus, was the Mercers' Company of London. . . . Though the most influential Merchant Adventurers resided in London, there were many in other English towns. . . . The contrast between the old Gild Merchant and the Company of Merchant Adventurers is striking. The one had to do wholly with foreign trade, and its members were forbidden to exercise a manual occupation or even to be retail shopkeepers; the other consisted mainly of small shopkeepers and artisans. The line of demarcation between merchants and manual craftsmen was sharply drawn by the second half of the sixteenth century, the term 'merchant' having already acquired its modern signification as a dealer on an extensive scale. Besides the Company of Merchant Adventurers trading to the Low Countries—which during the eighteenth century was called the Hamburg Company—various new Companies of Merchant Adventurers trading to other lands arose in the sixteenth and seventeenth centuries, especially during the reigns of Elizabeth and her immediate successors. Among them were the Russian or Muscovy Company, the Turkey or Levant Company, the Guinea Company, the Morocco Company, the Eastland Company, the Spanish Company, and the East India Company."—C. Gross, *The Gild Merchant*, pp. 148-156.

MERCHANT GUILD. See GUILDS, MEDIEVAL.

MERCHANT TAYLORS' SCHOOL. See EDUCATION, MODERN: EUROPEAN COUNTRIES.—ENGLAND.

MERCIA, The Kingdom of.—A kingdom formed at the close of the 6th century by the West Angles, on the Welsh border, or March. The people who formed it had acquired the name of Men of the March, from which they came to be called Mercians, and their kingdom Mercia. In the next century, under King Penda, its territory and its power were greatly extended, at the expense of Northumbria.—J. R. Green, *The Making of England*.—See, also, ENGLAND: A. D. 547-633.

MERCY FOR THE REDEMPTION OF CHRISTIAN CAPTIVES, The Order of.—"For the institution of this godlike order, the Christian world was indebted to Pope Innocent

III., at the close of the 12th century. . . . The exertions of the order were soon crowned with success. One third of its revenues was appropriated to the objects of its foundation, and thousands groaning in slavery were restored to their country. . . . The order . . . met with so much encouragement that, in the time of Alberic, the monk (who wrote about forty years after its institution), the number of monastic houses amounted to 600, most of which were situated in France, Lombardy and Spain."—S. A. Dunham, *Hist. of Spain and Portugal*, bk. 3, sect. 3, ch. 4 (p. 4).

MERGENTHEIM, Battle of (1645). See GERMANY: A. D. 1640-1645.

MERIDA, Origin of. See EMERITA AUGUSTA. A. D. 712.—Siege and capture by the Arab-Moors. See SPAIN: A. D. 711-713.

MERIDIAN, Miss., Sherman's Raid to. See UNITED STATES OF AM.: A. D. 1863-1864 (DECEMBER—APRIL: TENNESSEE—MISSISSIPPI).

MERMNADÆ, The.—The third dynasty of the kings of Lydia, beginning with Gyges and ending with Croesus.—M. Duncker, *Hist. of Antiquity*, bk. 4, ch. 17 (p. 3).

MEROË, The Kingdom of. See ETHIOPIA.

MEROM, Battle of.—The final great victory won by Joshua in the conquest of Canaan, over the Canaanite and Amorite kings, under Jabin, king of Hazor, who seems to have been a kind of over-king or chieftain among them.—Dean Stanley, *Lects. on the Hist. of the Jewish Church*, lect. 12 (p. 1).

MEROVINGIANS, The. See FRANKS: A. D. 448-456; and 511-752.

MERRIMAC AND MONITOR, Battle of the. See UNITED STATES OF AM.: A. D. 1862 (MARCH).

MERRYMOUNT. See MASSACHUSETTS: A. D. 1622-1628.

MERTÆ, The. See BRITAIN: CELTIC TRIBES.

MERTON, Statutes of.—A body of laws enacted at a Great Council held at Merton, in England, under Henry III., A. D. 1236, which marks an important advance made in the development of constitutional legislation.—G. W. Prothero, *Simon de Montfort*.

MERU. See MERV.

MERV, OR MERU: A. D. 1221.—Destruction by Jingis Khan.—In the merciless march through Central Asia of the awful Mongol horde set in motion by Jingis Khan, the great city of Meru (modern Merv) was reached in the autumn of A. D. 1220. This was "Meru Shahjan, i. e., Meru the king of the world, one of the four chief cities of Khorassan, and one of the oldest cities of the world. It had been the capital of the great Seljuk Sultans Melikshah and Sanjar, and was very rich and populous. It was situated on the banks of the Meri el rond, also called the Murjab. . . . The siege commenced on the 25th of February, 1221. The governor of the town . . . sent a venerable imam as an envoy to the Mongol camp. He returned with such fair promises that the governor himself repaired to the camp, and was loaded with presents; he was asked to send for his chief relations and friends; when these were fairly in his power, Tului [one of the sons of Jingis Khan] ordered them all,

including the governor, to be killed. The Mongols then entered the town, the inhabitants were ordered to evacuate it with their treasures; the mournful procession, we are told, took four days to defile out. . . . A general and frightful massacre ensued; only 400 artisans and a certain number of young people were reserved as slaves. The author of the 'Jhankushai' says that the Seyid Yzz-ud-din, a man renowned for his virtues and piety, assisted by many people, were thirteen days in counting the corpses, which numbered 1,800,000. Ibn al Ethir says that 700,000 corpses were counted. The town was sacked, the mausoleum of the Sultan Sanjar was rifled and then burnt, and the walls and citadel of Meru levelled with the ground."—H. H. Howorth, *Hist. of the Mongols*, v. 1, p. 87.—See, also, KHORASSAN: A. D. 1220-1221.

A. D. 1884.—Russian occupation. See RUSSIA: A. D. 1869-1881.

MERWAN I., Caliph. A. D. 683-684. . . . Merwan II., Caliph, 744-750.

MERWING.—One of the forms given to the name of the royal family of the Franks, established in power by Clovis, and more commonly known as the Merovingian Family.

MERV, Battle of. See FRANCE: A. D. 1814 (JANUARY—MARCH).

MESCHIANZA, OR MISCHIANZA, The. See PHILADELPHIA: A. D. 1777-1778.

MESOPOTAMIA.—"Between the outer limits of the Syro-Arabian desert and the foot of the great mountain-range of Kurdistan and Luristan intervenes a territory long famous in the world's history, and the chief site of three out of the five empires of whose history, geography, and antiquities it is proposed to treat in the present volumes. Known to the Jews as Aram-Naharaim, or 'Syria of the two rivers'; to the Greeks and Romans as Mesopotamia, or 'the between-river country'; to the Arabs as Al-Jezireh, or 'the island,' this district has always taken its name from the streams [the Tigris and Euphrates] which constitute its most striking feature."—G. Rawlinson, *Five Great Monarchies: Chaldaea*, ch. 1.

MESSALINA, The infamies of. See ROME: A. D. 47-54.

MESSANA. See MESSENE.

MESSAPIANS, The. See CENOTRIANS.

MESSENE, in Peloponnesus: B. C. 369.—The founding of the city.—Restoration of the enslaved Messenians. See MESSENIAN WAR, THE THIRD; also, GREECE: B. C. 371-302.

B. C. 338.—Territories restored by Philip of Macedon. See GREECE: B. C. 357-336.

B. C. 184.—Revolt from the Achæan League.—A faction in Messene which was hostile to the Achæan League having gained the ascendancy, B. C. 184, declared its secession from the League. Philopœmen, the chief of the League, proceeded at once with a small force to reduce the Messenians to obedience, but was taken prisoner and was foully executed by his enemies. Bishop Thirlwall pronounces him "the last great man whom Greece produced." The death of Philopœmen was speedily avenged on those who caused it and Messene was recovered to the League.—O. Thirlwall, *Hist. of Greece*, ch. 65.

Also in: Plutarch, *Philopœmen*.

MESSENE (MODERN MESSINA), in Sicily.—The founding of the city.—“Zancle was originally colonised by pirates who came from Cyme the Chalcidian city in Opicia. . . . Zancle was the original name of the place, a name given by the Sicels because the site was in shape like a sickle, for which the Sicel word is Zancleon. These earlier settlers were afterwards driven out by the Samians and other Ionians, who when they fled from the Persians found their way to Sicily. Not long afterwards Anaxilas, the tyrant of Rhegium, drove out these Samians. He then re-peopled their city with a mixed multitude, and called the place Messene, after his native country.”—Thucydides, *History*, trans. by Jonett, bk. 6, sect. 4.

B. C. 396.—Destruction by the Carthaginians. See SYRACUSE: B. C. 397-396.

B. C. 264.—The Mamertines. See PUNIC WAR, THE FIRST.

A. D. 1849.—Bombardment and capture by King Ferdinand. See ITALY: A. D. 1848-1849.

MESSENIAN WARS, The First and Second.—The Spartans were engaged in two successive wars with their neighbors of Messenia, whose territory, adjoining their own in the southwestern extremity of Peloponnesus, was rich, prosperous and covetable. “It was unavoidable that the Spartans should look down with envy from their bare rocky ridges into the prosperous land of their neighbours and the terraces close by, descending to the river, with their well-cultivated plantations of oil and wine. Besides, the Dorians who had immigrated into Messenia had, under the influence of the native population and of a life of comfortable ease, lost their primitive character. Messenia seemed like a piece of Arcadia, with which it was most intimately connected. . . . Hence this was no war of Dorians against Dorians; it rather seemed to be Sparta’s mission to make good the failure of the Dorization of Messenia which had sunk back into Pelagic conditions of life, and to unite with herself the remains of the Dorian people still surviving there. In short, a variety of motives contributed to provoke a forcible extension of Spartan military power on this particular side.”—E. Curtius, *Hist. of Greece*, bk. 2, ch. 1 (v. 1).—The First Messenian War was commenced B. C. 745 and lasted twenty years, ending in the complete subjugation of the Messenians, who were reduced to a state of servitude like that of the Helots of Sparta. After enduring the oppression for thirty-nine years, the Messenians rose in revolt against their Spartan masters, B. C. 685. The leader and great hero of this Second Messenian War was Aristomenes, whose renown became so great in the despairing struggle that the latter was called among the ancients the Aristomenean War. But all the valor and self-sacrifice of the unhappy Messenians availed nothing. They gave up the contest, B. C. 668; large numbers of them escaped to other lands and those who remained were reduced to a more wretched condition than before.—C. Thirlwall, *Hist. of Greece*, ch. 9.—See, also, SPARTA: B. C. 745-510.

The Third.—“The whole of Laconia [B. C. 464] was shaken by an earthquake, which opened great chasms in the ground, and rolled down huge masses from the highest peaks of Taygetus: Sparta itself became a heap of ruins, in which not more than five houses are said to have

been left standing. More than 20,000 persons were believed to have been destroyed by the shock, and the flower of the Spartan youth was overwhelmed by the fall of the buildings in which they were exercising themselves at the time.”—C. Thirlwall, *Hist. of Greece*, ch. 17.—The Helots of Sparta, especially those who were descended from the enslaved Messenians, took advantage of the confusion produced by the earthquake, to rise in revolt. Having secured possession of Ithome, they fortified themselves in the town and withstood there a siege of ten years,—sometimes called the Third Messenian War. The Spartans invited the Athenians to aid them in the siege, but soon grew jealous of their allies and dismissed them with some rudeness. This was one of the prime causes of the animosity between Athens and Sparta which afterward flamed out in the Peloponnesian War. In the end, the Messenians at Ithome capitulated and were allowed to quit the country; whereupon the Athenians settled them at Naupactus, on the Corinthian gulf, and so gained an ardent ally, in an important situation.—Thucydides, *History*, bk. 1, sect. 101-103.—Nearly one hundred years later (B. C. 369) when Thebes, under Epaminondas, rose to power in Greece and Sparta was humiliated, it was one of the measures of the Theban statesman to found at Ithome an important city which he named Messene, into which the long oppressed Messenians were gathered, from slavery and from exile, and were organized in a state once more, free and independent.—C. Thirlwall, *Hist. of Greece*, ch. 39.

ALSO IN: G. Grote, *Hist. of Greece*, pt. 2, ch. 78.

MESSIDOR, The month. See FRANCE: A. D. 1793 (OCTOBER).

MESTA. See TRADE, MODERN: SPANISH.

MESTIZO.—**MULATTO.**—A half-breed person in Peru, born of a white father and an Indian mother, is called a Mestizo. One born of a white father and a negro mother is called a mulatto.—J. J. Von Tschudi, *Travels in Peru*, ch. 5.

METAPONTIUM. See SIRIS.

METAURUS, Battle of the. See PUNIC WAR, THE SECOND. . . . Defeat of the Alemanni. See ALEMANNI: A. D. 270.

MÉTAYERS. See FRANCE: A. D. 1789.

METEMNEH, Battle of (1885). See EGYPT: A. D. 1884-1885.

METHODISTS: Origin of the Religious Denomination.—“The term Methodist was a college nickname bestowed upon a small society of students at Oxford who met together between 1729 and 1785 for the purpose of mutual improvement. They were accustomed to communicate every week, to fast regularly on Wednesdays and Fridays, and on most days during Lent; to read and discuss the Bible in common, to abstain from most forms of amusement and luxury, and to visit sick persons and prisoners in the gaol. John Wesley, the master-spirit of this society, and the future leader of the religious revival of the eighteenth century, was born in 1703, and was the second surviving son of Samuel Wesley, the Rector of Epworth, in Lincolnshire. . . . The society hardly numbered more than fifteen members, and was the object of much ridicule at the university; but it included some men who afterwards played considerable parts

in the world. Among them was Charles, the younger brother of John Wesley, whose hymns became the favourite poetry of the sect, and whose gentler, more submissive, and more amiable character, though less fitted than that of his brother for the great conflicts of public life, was very useful in moderating the movement, and in drawing converts to it by personal influence. Charles Wesley appears to have been the first to originate the society at Oxford; he brought Whitefield into its pale, and besides being the most popular poet he was one of the most persuasive preachers of the movement. There, too, was James Hervey, who became one of the earliest links connecting Methodism with general literature."—W. E. H. Lecky, *History of Eng. in the 18th Century*, ch. 9 (v. 2).

METHUEN, Rout of.—The first Scotch army assembled by Robert Bruce after he had been crowned king of Scotland, was surprised and routed by Aymer de Valence, June 26, 1306.—C. H. Pearson, *Hist. of Eng. during the Early and Middle Ages*, v. 2, ch. 14.

METHUEN TREATY, The. See PORTUGAL: A. D. 1703; and SPAIN: A. D. 1703-1704.

METÖACS, The. See AMERICAN ABORIGINES: ALGONQUIAN FAMILY.

METŒCI.—"Resident aliens, or Metœci, are non-citizens possessed of personal freedom, and settled in Attica. Their number, in the flourishing periods of the State, might amount to 45,000, and therefore was about half that of the citizens."—G. F. Schömann, *Antiq. of Greece: The State*, pt. 3, ch. 3, sect. 2.

METON, The year of.—"Hitherto [before the age of Pericles] the Athenians had only had the Octaeteris, i. e., the period of eight years, of which three were composed of thirteen months, in order thus to make the lunar years correspond to the solar. But as eight such solar

years still amount to something short of 99 lunar months, this cycle was insufficient for its purpose. . . . Meton and his associates calculated that a more correct adjustment might be obtained within a cycle of 6,940 days. These made up 235 months, which formed a cycle of 19 years; and this was the so called 'Great Year,' or 'Year of Meton.'"—E. Curtius, *Hist. of Greece*, bk. 3, ch. 3 (v. 2).

METRETES, The. See EPIAH.

METROPOLITANS. See PRIMATES.

METROPOTAMIA, The proposed State of. See NORTHWEST TERRITORY: A. D. 1784.

METTERNICH, The governing system of. See HOLY ALLIANCE.

METZ: Original names.—The Gallic town of Divodurum acquired later the name of Mediomatrici, which modern tongues have changed to Metz.—C. Merivale, *Hist. of the Romans*, ch. 34, foot-note.

A. D. 451.—Destruction by the Huns. See HUNS: A. D. 451.

A. D. 511-752.—The Austrasian capital. See FRANKS: A. D. 511-752.

A. D. 1552-1559.—Treacherous occupation by the French.—Siege by Charles V.—Cession to France. See FRANCE: A. D. 1547-1559.

A. D. 1648.—Ceded to France in the Peace of Westphalia. See GERMANY: A. D. 1648.

A. D. 1679-1680.—The Chamber of Reannexation. See FRANCE: A. D. 1679-1681.

A. D. 1870.—The French army of Bazaine enclosed and besieged.—The surrender. See FRANCE: A. D. 1870 (JULY-AUGUST), to (SEPTEMBER-OCTOBER).

A. D. 1871.—Cession to Germany. See FRANCE: A. D. 1871 (JANUARY-MAY).

MEXICAN PICTURE-WRITING. See AZTEC AND MAYA PICTURE-WRITING.

MEXICO.

Ancient: The Maya and Nahua peoples and their civilization.—"Notwithstanding evident marks of similarity in nearly all the manifestations of the progressional spirit in aboriginal America, in art, thought, and religion, there is much reason for and convenience in referring all the native civilization to two branches, the Maya and the Nahua, the former the more ancient, the latter the more recent and wide-spread. . . . It is only, however, in a very general sense that this classification can be accepted, and then only for practical convenience in elucidating the subject; since there are several nations that must be ranked among our civilized peoples, which, particularly in the matter of language, show no Maya nor Nahua affinities. Nor is too much importance to be attached to the names Maya and Nahua, by which I designate these parallel civilizations. The former is adopted for the reason that the Maya people and tongue are commonly regarded as among the most ancient in all the Central American region, a region where formerly flourished the civilization that left such wonderful remains at Palenque, Uxmal, and Copan; the latter as being an older designation than either Aztec or Toltec, both of which stocks the race Nahua includes. The civilization of

what is now the Mexican Republic, north of Tehuantepec, belonged to the Nahua branch, both at the time of the conquest and throughout the historic period preceding. Very few traces of the Maya element occur north of Chiapas, and these are chiefly linguistic, appearing in two or three nations dwelling along the shores of the Mexican gulf. In published works upon the subject the Aztecs are the representatives of the Nahua element; indeed, what is known of the Aztecs has furnished material for nine tenths of all that has been written on the American civilized nations in general. The truth of the matter is that the Aztecs were only the most powerful of a league or confederation of three nations, which in the 16th century, from their capitals in the valley, ruled central Mexico."—H. H. Bancroft, *Native Races of the Pacific States*, v. 2, ch. 2.—"The evidence . . . has pointed—with varying force, but with great uniformity of direction—towards the Central or Usumacinta region [Central America], not necessarily as the original cradle of American civilization, but as the most ancient home to which it can be traced by traditional, monumental, and linguistic records. . . . Throughout several centuries preceding the Christian era, and perhaps one or

two centuries following, there flourished in Central America the great Maya empire of the Chanes, Culhuas, or Serpents, known to its foes as Xibalba, with its centre in Chiapas at or near Palenque, and with several allied capitals in the surrounding region. Its first establishment at a remote period was attributed by the people to a being called Votan, who was afterwards worshipped as a god. . . . From its centre in the Usumacinta region the Votanic power was gradually extended north-westward towards Anáhuac, where its subjects vaguely appear in tradition as Quinames, or giants. It also penetrated north-eastward into Yucatan, where Zamná was its reputed founder, and the Cocomes and Itzas probably its subjects. . . . The Maya empire seems to have been in the height of its prosperity when the rival Nahuatl power came into prominence, perhaps two or three centuries before Christ. The origin of the new people and of the new institutions is as deeply shrouded in mystery as is that of their predecessors. . . . The Plumed Serpent, known in different tongues as Quetzalcoatl, Gucumatz, and Cukulcan, was the being who traditionally founded the new order of things. The Nahuatl power grew up side by side with its Xibalban predecessor, having its capital Tulan apparently in Chiapas. Like the Maya power, it was not confined to its original home, but was borne . . . towards Anáhuac. . . . The struggle on the part of the Xibalbans seems to have been that of an old effete monarchy against a young and progressive people. Whatever its cause, the result of the conquest was the overthrow of the Votanic monarchs at a date which may be approximately fixed within a century before or after the beginning of our era. From that time the ancient empire disappears from traditional history. . . . Respecting the ensuing period of Nahuatl greatness in Central America nothing is recorded save that it ended in revolt, disaster, and a general scattering of the tribes at some period probably preceding the 5th century. The national names that appear in connection with the closing struggles are the Toltecs, Chichimecs, Quichés, Nonohualcas, and Tutul Xius, none of them apparently identical with the Xibalbans. . . . Of the tribes that were successively defeated and forced to seek new homes, those that spoke the Maya dialects, although considering themselves Nahuas, seem to have settled chiefly in the south and east. Some of them afterwards rose to great prominence in Guatemala and Yucatan. . . . The Nahuatl-speaking tribes as a rule established themselves in Anáhuac and in the western and north-western parts of Mexico. . . . The valley of Mexico and the country immediately adjoining soon became the centre of the Nahuas in Mexico."—The same, *v. 5, ch. 3*—See, also, AMERICAN ABORIGINES: MAYAS; and AZTEC AND MAYA PICTURE-WRITING.

Ancient: the Toltec empire and civilization.—Are they mythical?—"The old-time story, how the Toltecs in the 6th century appeared on the Mexican table-land, how they were driven out and scattered in the 11th century, how after a brief interval the Chichimecs followed their footsteps, and how these last were succeeded by the Aztecs who were found in possession,—the last two, and probably the first, migrating in immense hordes from the far north-west,—all this is sufficiently familiar to readers of Mexican history, and is furthermore

fully set forth in the 5th volume of this work. It is probable, however, that this account, accurate to a certain degree, has been by many writers too literally construed; since the once popular theory of wholesale national migrations of American peoples within historic times, and particularly of such migrations from the north-west, may now be regarded as practically unfounded. The 6th century is the most remote period to which we are carried in the annals of Anáhuac by traditions sufficiently definite to be considered in any proper sense as historic records. . . . At the opening . . . of the historic times, we find the Toltecs in possession of Anáhuac and the surrounding country. Though the civilization was old, the name was new, derived probably, although not so regarded by all, from Tollan, a capital city of the empire, but afterwards becoming synonymous with all that is excellent in art and high culture. Tradition imputes to the Toltecs a higher civilization than that found among the Aztecs, who had degenerated with the growth of the warlike spirit, and especially by the introduction of more cruel and sanguinary religious rites. But this superiority, in some respects not improbable, rests on no very strong evidence, since this people left no relics of that artistic skill which gave them so great traditional fame; there is, however, much reason to ascribe the construction of the pyramids at Teotihuacan and Cholula to the Toltec or a still earlier period. Among the civilized peoples of the 16th century, however, and among their descendants down to the present day, nearly every ancient relic of architecture or sculpture is accredited to the Toltecs, from whom all claim descent. . . . So confusing has been the effect of this universal reference of all traditional events to a Toltec source, that, while we can not doubt the actual existence of this great empire, the details of its history, into which the supernatural so largely enters, must be regarded as to a great extent mythical. There are no data for fixing accurately the bounds of the Toltec domain, particularly in the south. There is very little, however, to indicate that it was more extensive in this direction than that of the Aztecs in later times, although it seems to have extended somewhat farther northward. On the west there is some evidence that it included the territory of Michoacan, never subdued by the Aztecs; and it probably stretched eastward to the Atlantic. . . . During the most flourishing period of its traditional five centuries of duration, the Toltec empire was ruled by a confederacy, similar in some respects to the alliance of later date between Mexico, Tezcucan and Tlacopan. The capitals were Culhuacan, Otompan, and Tollan, the two former corresponding somewhat in territory with Mexico and Tezcucan, while the latter was just beyond the limits of the valley toward the north-west. Each of these capital cities became in turn the leading power in the confederacy. Tollan reached the highest eminence in culture, splendor, and fame, and Culhuacan was the only one of the three to survive by name the bloody convulsions by which the empire was at last overthrown, and retain anything of her former greatness. Long-continued civil wars, arising chiefly from dissensions between rival religious factions, . . . gradually undermine the imperial thrones. . . . So the kings of Tollan, Culhuacan, and Otompan, lose, year by year,

their prestige, and finally, in the middle of the 11th century, are completely overthrown, leaving the Mexican tableland to be ruled by new combinations of rising powers."—H. H. Bancroft, *Native Races of the Pacific States*, v. 2, ch. 2.—"Long before the Aztecs, a Toltec tribe called the Acolhuas, or Culhuas, had settled in the valley of Mexico. The name is more ancient than that of Toltec, and the Mexican civilization might perhaps as appropriately be called Culhua as Nahua. The name is interpreted 'crooked' from coloa, bend; also 'grandfather' from colli. Colhuacan might therefore signify Land of Our Ancestors."—The same, *Hist. of the Pacific States*, v. 4, p. 23, foot-note.—"The most venerable traditions of the Maya race claimed for them a migration from 'Tollan in Zuyva.' . . . This Tollan is certainly none other than the abode of Quetzalcoatl. . . . The cities which selected him as their tutelary deity were named for that which he was supposed to have ruled over. Thus we have Tollan and Tollantzinco ('behind Tollan') in the Valley of Mexico, and the pyramid Cholula was called 'Tollan-Cholollan,' as well as many other Tollans and Tulas among the Nahuatl colonies. The natives of the city of Tula were called, from its name, Tolteca, which simply means 'those who dwell in Tollan.' And who, let us ask, were these Toltecs? They have hovered about the dawn of American history long enough. To them have been attributed not only the primitive culture of Central America and Mexico, but of lands far to the north, and even the earthworks of the Ohio Valley. It is time they were assigned their proper place, and that is among the purely fabulous creations of the imagination, among the giants and fairies, the gnomes and sylphs, and other such fancied beings which in all ages and nations the popular mind has loved to create. Toltec, Toltecatl, which in later days came to mean a skilled craftsman or artificer, signifies, as I have said, an inhabitant of Tollan—of the City of the Sun—in other words, a Child of Light. . . . In some, and these I consider the original versions of the myth, they do not constitute a nation at all, but are merely the disciples or servants of Quetzalcoatl. They have all the traits of beings of supernatural powers."—D. G. Brinton, *American Hero-Myths*, ch. 8, sect. 3.

ALSO IN: The same, *Essays of an Americanist*, pp. 88-100.—A recent totally contrary view, in which the Toltecs are fully accepted and modernized, is presented by M. Charnay.—D. Charnay, *Ancient Cities of the New World*.

A. D. 1325-1502.—The Aztec period.—The so called empire of Montezuma.—"The new era succeeding the Toltec rule is that of the Chichimec empire, which endured with some variations down to the coming of Cortés. The ordinary version of the early annals has it, that the Chichimecs, a wild tribe living far in the north-west, learning that the fertile regions of Central Mexico had been abandoned by the Toltecs, came down in immense hordes to occupy the land. . . . The name Chichimec at the time of the Spanish conquest, and subsequently, was used with two significations, first, as applied to the line of kings that reigned at Tezcuco, and second, to all the wild hunting tribes, particularly in the broad and little-known regions of the north. Traditionally or historically, the name has been applied to nearly every people men-

tioned in the ancient history of America! This has caused the greatest confusion among writers on the subject, a confusion which I believe can only be cleared up by the supposition that the name Chichimec, like that of Toltec, never was applied as a tribal or national designation proper to any people, while such people were living. It seems probable that among the Nahua peoples that occupied the country from the 6th to the 11th centuries, a few of the leading powers appropriated to themselves the title Toltecs, which had been at first employed by the inhabitants of Tollan, whose artistic excellence soon rendered it a designation of honor. To the other Nahua peoples, by whom these leading powers were surrounded, whose institutions were identical, but whose polish and elegance of manner were deemed by these self-constituted aristocrats somewhat inferior, the term Chichimecs, barbarians, etymologically 'dogs,' was applied. After the convulsions that overthrew Tollan, and reversed the condition of the Nahua nations, the 'dogs' in their turn assumed an air of superiority and retained their designation, Chichimecs, as a title of honor and nobility."—H. H. Bancroft, *Native Races of the Pacific States*, v. 2, ch. 2.—"We may suppose the 'Toltec period' in Mexican tradition to have been simply the period when the pueblo-town of Tollan was flourishing, and domineered most likely over neighbouring pueblos. One might thus speak of it as one would speak of the 'Theban period' in Greek history. After the 'Toltec period,' with perhaps an intervening 'Chichimec period' of confusion, came the 'Aztec period;' or, in other words, some time after Tollan lost its importance, the city of Mexico came to the front. Such, I suspect, is the slender historical residuum underlying the legend of a 'Toltec empire.' The Codex Ramirez assigns the year 1168 as the date of the abandonment of the Serpent Hill by the people of Tollan. We begin to leave this twilight of legend when we meet the Aztecs already encamped in the Valley of Mexico. Finding the most obviously eligible sites preoccupied, they were sagacious enough to detect the advantages of a certain marshy spot through which the outlets of lakes Chalco and Xochimilco, besides sundry rivulets, flowed northward and eastward into Lake Tezcuco. Here in the year 1325 they began to build their pueblo, which they called Tenochtitlan,—a name whereby hangs a tale. When the Aztecs, hard pressed by foes, took refuge among these marshes, they came upon a sacrificial stone which they recognized as one upon which some years before one of their priests had immolated a captive chief. From a crevice in this stone, where a little earth was imbedded, there grew a cactus, upon which sat an eagle holding in its beak a serpent. A priest ingeniously interpreted this symbolism as a prophecy of signal and long-continued victory, and forthwith diving into the lake he had an interview with Tlaloc, the god of waters, who told him that upon that very spot the people were to build their town. The place was therefore called Tenochtitlan, or 'place of the cactus-rock,' but the name under which it afterward came to be best known was taken from Mexitli, one of the names of the war-god Huitzilopochtli. The device of the rock and cactus, with the eagle and serpent, formed a tribal totem for the Aztecs, and has been adopted as the coat-of-

arms of the present Republic of Mexico. The pueblo of Tenochtitlan was surrounded by salt marshes, which by dint of dikes and causeways the Aztecs gradually converted into a large artificial lake, and thus made their pueblo by far the most defensible stronghold in Anahuac,—impregnable, indeed, so far as Indian modes of attack were concerned. The advantages of this commanding position were slowly but surely realized. A dangerous neighbour upon the western shore of the lake was the tribe of Tecpanecas, whose principal pueblo was Azcaputzalco. The Aztecs succeeded in making an alliance with these Tecpanecas, but it was upon unfavourable terms and involved the payment of tribute to Azcaputzalco. It gave the Aztecs, however, some time to develop their strength. Their military organization was gradually perfected, and in 1375 they elected their first tlacatecūhtli, or 'chief-of-men,' whom European writers, in the loose phraseology formerly current, called 'founder of the Mexican empire.' The name of this official was Acamapichtli, or 'Handful-of-Reeds.' During the eight-and-twenty years of his chieftancy the pueblo houses in Tenochtitlan began to be built very solidly of stone, and the irregular water-courses flowing between them were improved into canals. Some months after his death in 1403 his son Huitzilihuitl, or 'Humming-bird,' was chosen to succeed him. This Huitzilihuitl was succeeded in 1414 by his brother Chimalpopoca, or 'Smoking Shield,' under whom temporary calamity visited the Aztec town. The alliance with Azcaputzalco was broken, and that pueblo joined its forces to those of Tezcuco on the eastern shore of the lake. United they attacked the Aztecs, defeated them, and captured their chief-of-men, who died a prisoner in 1427. He was succeeded by Izcoatzin, or 'Obsidian Snake,' an aged chieftain who died in 1436. During these nine years a complete change came over the scene. Quarrels arose between Azcaputzalco and Tezcuco; the latter pueblo entered into alliance with Tenochtitlan, and together they overwhelmed and destroyed Azcaputzalco, and butchered most of its people. What was left of the conquered pueblo was made a slave mart for the Aztecs, and the remnant of the people were removed to the neighbouring pueblo of Tlacopan, which was made tributary to Mexico. By this great victory the Aztecs also acquired secure control of the springs upon Chapultepec, or 'Grasshopper Hill,' which furnished a steady supply of fresh water to their island pueblo. The next step was the formation of a partnership between the three pueblo towns, Tenochtitlan, Tezcuco, and Tlacopan, for the organized and systematic plunder of other pueblos. All the tribute or spoils extorted was to be divided into five parts, of which two parts each were for Tezcuco and Tenochtitlan, and one part for Tlacopan. The Aztec chief-of-men became military commander of the confederacy, which now began to extend operations to a distance. The next four chiefs-of-men were Montezuma, or 'Angry Chief,' the First, from 1436 to 1464; Axayacatl, or 'Face-in-the-Water,' from 1464 to 1477; Tizoc, or 'Wounded Leg,' from 1477 to 1486; and Ahuizotl, or 'Water-Rat,' from 1486 to 1502. Under these chiefs the great temple of Mexico was completed, and the aqueduct from Chapultepec was increased in capacity until it not only sup-

plied water for ordinary uses, but could also be made to maintain the level of the canals and the lake. In the driest seasons, therefore, Tenochtitlan remained safe from attack. Forth from this well-protected lair the Aztec warriors went on their errands of blood. Thirty or more pueblo towns, mostly between Tenochtitlan and the Gulf coast, scattered over an area about the size of Massachusetts, were made tributary to the Confederacy; and as all these communities spoke the Nahuatl language, this process of conquest, if it had not been cut short by the Spaniards, might in course of time have ended in the formation of a primitive kind of state. This tributary area formed but a very small portion of the country which we call Mexico. If the reader will just look at a map of the Republic of Mexico in a modern atlas, and observe that the states of Queretaro, Guanajuato, Michoacan, Guerrero, and a good part of La Puebla, lie outside the region sometimes absurdly styled 'Montezuma's Empire,' and surround three sides of it, he will begin to put himself into the proper state of mind for appreciating the history of Cortes and his companions. Into the outlying region just mentioned, occupied by tribes for the most part akin to the Nahuas in blood and speech, the warriors of the Confederacy sometimes ventured, with varying fortunes. They levied occasional tribute among the pueblos in these regions, but hardly made any of them regularly tributary. The longest range of their arms seems to have been to the eastward, where they sent their tax-gatherers along the coast into the isthmus of Tehuantepec, and came into conflict with the warlike Mayas and Quiches. . . . Such was, in general outline, what we may call the political situation in the time of the son of Axayacatl, the second Montezuma, who was elected chief-of-men in 1502, being then thirty-four years of age."

—J. Fiske, *The Discovery of America*, ch. 8 (v. 2).
A. D. 1517-1518.—First found by the Spaniards. See AMERICA: A. D. 1517-1518.

A. D. 1519 (February—April).—The coming of Cortés and the Spaniards.—Some time in the latter part of the year 1517, the Spaniards in Cuba had acquired definite knowledge of a much civilized people who inhabited "terra firma" to the west of them, by the return of Hernandez de Cordova from his involuntary voyage to Yucatan (see AMERICA: A. D. 1517-1518). In the spring of 1518 the Cuban governor, Velasquez, had enlarged that knowledge by sending an expedition under Grijalva to the Mexican coast, and, even before Grijalva returned, he had begun preparations for a more serious undertaking of conquest and occupation in the rich country newly found. For the command of this second armament he selected Hernando Cortés, one of the boldest and most ambitious of the adventurers who had helped to subdue and settle the island of Cuba. Before the fleet sailed, however, a jealous distrust of his lieutenant had become excited by some cause in the governor's mind, and he attempted to supersede him in the command. Cortes slipped out of port, half prepared as he was for the voyage, defied the orders of his superior, and made his way (February, 1519) to the scene of his future conquests, actually as a rebel against the authority which commissioned him. "The squadron of Cortés was composed of eleven small vessels. There were 110 sailors, 553 soldiers, of

which 13 were armed with muskets, and 32 with arquebuses, the others with swords and pikes only. There were 10 little field-pieces, and 16 horses. Such were the forces with which the bold adventurer set forth to conquer a vast empire, defended by large armies, not without courage, according to the report of Grijalva. But the companions of Cortés were unfamiliar with fear. Cortés followed the same route as Grijalva. . . . At the Tabasco River, which the Spanish called Río de Grijalva, because that explorer had discovered it, they had a fight with some natives who resisted their approach. These natives fought bravely, but the fire-arms, and above all the horses, which they conceived to be of one piece with their riders, caused them extreme terror, and the rout was complete. . . . The native prince, overcome, sent gifts to the conqueror, and, without much knowing the extent of his agreement, acknowledged himself as vassal of the king of Spain, the most powerful monarch of the world." Meantime, tidings of a fresh appearance of the same strange race which had briefly visited the shores of the empire the year before were conveyed to Montezuma, and the king, who had sent envoys to the strangers before, but not quickly enough to find them, resolved to do so again. "The presents prepared for Grijalva, which had reached the shore too late, were, alas! all ready. To these were now added the ornaments used in the decoration of the image of Quetzalcoatl, on days of solemnity, regarded as the most sacred among all the possessions of the royal house of Mexico. Cortés accepted the rôle of Quetzalcoatl and allowed himself to be decorated with the ornaments belonging to that god without hesitation. The populace were convinced that it was their deity really returned to them. A feast was served to the envoys, with the accompaniment of some European wine which they found delicious. . . . During the feast native painters were busy depicting every thing they saw to be shown to their royal master. . . . Cortés sent to Montezuma a gilt helmet with the message that he hoped to see it back again filled with gold. . . . The bearer of this gift and communication, returning swiftly to the court, reported to the monarch that the intention of the stranger was to come at once to the capital of the empire. Montezuma at once assembled a new council of all his great vassals, some of whom urged the reception of Cortés, others his immediate dismissal. The latter view prevailed, and the monarch sent, with more presents to the unknown invader, benevolent but peremptory commands that he should go away immediately. . . . Meanwhile the Spanish camp was feasting and reposing in huts of cane, with fresh provisions, in great joy after the weariness of their voyage. They accepted with enthusiasm the presents of the emperor, but the treasures which were sent had an entirely different effect from that hoped for by Montezuma; they only inflamed the desire of the Spaniard to have all within his grasp, of which this was but a specimen. It was now that the great mistake in policy was apparent, by which the Aztec chieftain had for years been making enemies all over the country, invading surrounding states, and carrying off prisoners for a horrible death by sacrifice. These welcomed the strangers and encouraged their presence."—S. Hale, *The Story of Mexico*, ch. 13.

Also in: Bernal Diaz del Castillo, *Memoirs*, ch. 2-39 (v. 1).—J. Flske, *The Discovery of America*, ch. 8 (v. 2).

A. D. 1519 (June–October).—The advance of Cortés to Tlascala.—Meanwhile Cortés, by his craft, quieted a rising faction of the party of Velasquez which demanded to be led back to Cuba. He did this by seeming to acquiesce in the demand of his followers in laying the foundations of a town and constituting its people a municipality competent to choose a representative of the royal authority. This done, Cortés resigned his commission from Velasquez, and was at once invested with supreme power by the new municipality. The scheme which Velasquez had suspected was thus brought to fruition. Whoever resisted the new captain was conquered by force, persuasion, tact, or magnetism; and Cortés became as popular as he was irresistible. At this point messengers presented themselves from tribes not far off who were unwilling subjects of the Aztec power. The presence of possible allies was a propitious circumstance, and Cortés proceeded to cultivate the friendship of these tribes. He moved his camp day by day along the shore, inuring his men to marches, while the fleet sailed in company. They reached a large city [Cempoalla, or Zempoalla, the site of which has not been determined], and were regaled. Each chief told of the tyranny of Montezuma, and the eyes of Cortés glistened. The Spaniards went on to another town, slaves being provided to bear their burdens. Here they found tax-gatherers of Montezuma collecting tribute. Emboldened by Cortés' glance, his hosts seized the Aztec emissaries and delivered them to the Spaniards. Cortés now played a double game. He propitiated the servants of Montezuma by secretly releasing them, and added to his allies by enjoining every tribe he could reach to resist the Aztec collectors of tribute. The wandering municipality, as represented in this piratical army, at last stopped at a harbor where a town (La Villa Rica de Vera Cruz) sprang up, and became the base of future operations." At this point in his movements the adventurer despatched a vessel to Spain, with letters to the king, and with dazzling gifts of gold and Aztec fabrics. "Now came the famous resolve of Cortés. He would band his heterogeneous folk together—adherents of Cortés and of Velasquez—in one common cause and danger. So he adroitly led them to be partners in the deed which he stealthily planned. Hulk after hulk of the apparently worm-eaten vessels of the fleet sank in the harbor, until there was no flotilla left upon which any could desert him. The march to Mexico was now assured. The force with which to accomplish this consisted of about 450 Spaniards, six or seven light guns, fifteen horses, and a swarm of Indian slaves and attendants. A body of the Totonacs accompanied them. Two or three days brought them into the higher plain and its enlivening vegetation. When they reached the dependencies of Montezuma, they found orders had been given to extend to them every courtesy. They soon reached the Anahuac plateau, which reminded them not a little of Spain itself. They passed from cacique to cacique, some of whom groaned under the yoke of the Aztec; but not one dared do more than orders from Montezuma dictated. Then the invaders approached the territory of an independent

people, those of Tlascala, who had walled their country against neighboring enemies. A fight took place at the frontiers, in which the Spaniards lost two horses. They forced passes against great odds, but again lost a horse or two, — which was a perceptible diminution of their power to terrify. The accounts speak of immense hordes of the Tlascalans, which historians now take with allowances, great or small. Cortés spread what alarm he could by burning villages and capturing the country people. His greatest obstacle soon appeared in the compacted army of Tlascalans arrayed in his front. The conflict which ensued was for a while doubtful. Every horse was hurt, and 80 Spaniards were wounded; but the result was the retreat of the Tlascalans. Divining that the Spanish power was derived from the sun, the enemy planned a night attack; but Cortés suspected it, and assaulted them in their own ambush. Cortés now had an opportunity to display his double-facedness and his wiles. He received embassies both from Montezuma and from the senate of the Tlascalans. He cajoled each, and played off his friendship for the one in cementing an alliance with the other. But to Tlascala and Mexico he would go, so he told them. The Tlascalans were not averse, for they thought it boded no good to the Aztecs, if he could be bound to themselves. Montezuma dreaded the contact, and tried to intimidate the strangers by tales of the horrible difficulties of the journey. Presently the army took up its march for Tlascala, where they were royally received, and wives in abundance were bestowed upon the leaders. Next they passed to Cholula, which was subject to the Aztecs."—J. Winsor, *Narrative and Critical Hist. of Am.*, v. 2, ch. 6.

A. D. 1519 (October).—The Massacre at Cholula.—The march to Mexico.—"The distance from Tlascala to Cholula [or Cholula] is but from 15 to 20 miles. It was a kind of holy place, venerated far and wide in Anahuac; pilgrimages were made thither, as the Mahometans go to Mecca, and Christians to Jerusalem or Rome. The city was consecrated to the worship of Quetzalcoatl, who had there the noblest temple in all Mexico, built, like all the temples in the country, on the summit of a truncated pyramid. The traveller of the present day beholds this pyramid on the horizon as he approaches Puebla, on his route from Vera Cruz to Mexico. But the worship of the beneficent Quetzalcoatl had been perverted by the sombre genius of the Aztecs. To this essentially good deity 6,000 human victims were annually immolated in his temple at Cholula. . . . The Spaniards found at Cholula an eager and, to all appearance at least, a perfectly cordial welcome." But this hospitality masked, it is said, a great plot for their destruction, which Montezuma had inspired and to aid which he had sent into the neighborhood of the city a powerful Mexican army. The plot was revealed to Cortez—so the Spanish historians relate—and "he took his resolution with his accustomed energy and foresight. He made his dispositions for the very next day. He acquainted the caciques of Cholula that he should evacuate the city at break of dawn, and required them to furnish 2,000 porters or 'tamames,' for the baggage. The caciques then organized their attack for the morrow morning, not without a promise of the men required, whom, in fact, they brought at dawn to the great court

in which the foreigners were domiciled. The conflict soon began. The Spaniards, who were perfectly prepared, commenced by massacring the caciques. The mass of Chololans that attempted to invade their quarters were crushed under the fire of their artillery and musketry, and the charges of their cavalry. Hearing the reports, the Tlascalans, who had been left at the entrance of the city, rushed on to the rescue. . . . They could now glut their hatred and vengeance; they slaughtered as long as they could, and then set to work at plunder. The Spaniards, too, after having killed all that resisted, betook themselves to pillage. The unfortunate city of Cholula was thus inundated with blood and sacked. Cortez, however, enjoined that the women and children should be spared, and we are assured that in that he was obeyed, even by his cruel auxiliaries from Tlascala. . . . To the praise of Cortez it must be said that, after the victory, he once more showed himself tolerant: he left the inhabitants at liberty to follow their old religion on condition that they should no longer immolate human victims. After this signal blow, all the threats, all the intrigues, of Montezuma, had no possible effect, and the Aztec emperor could be under no illusion as to the inflexible intention of Cortez. The latter, as soon as he had installed new chiefs at Cholula, and effaced the more hideous traces of the massacre and pillage that had desolated the city, set out with his own troops and his Indian auxiliaries from Tlascala for the capital of the Aztec empire, the magnificent city of Tenochtitlan."—M. Chevalier, *Mexico, Ancient and Modern*, pt. 2, ch. 4 (v. 1).

The Capital of Montezuma as described by Cortés and Bernal Diaz.—"This Province is in the form of a circle, surrounded on all sides by lofty and rugged mountains; its level surface comprises an area of about 70 leagues in circumference, including two lakes, that overspread nearly the whole valley, being navigated by boats more than 50 leagues round. One of these lakes contains fresh, and the other, which is the larger of the two, salt water. On one side of the lakes, in the middle of the valley, a range of highlands divides them from one another, with the exception of a narrow strait which lies between the highlands and the lofty Sierras. This strait is a bow-shot wide, and connects the two lakes; and by this means a trade is carried on between the cities and other settlements on the lakes in canoes without the necessity of travelling by land. As the salt lake rises and falls with its tides like the sea, during the time of high water it pours into the other lake with the rapidity of a powerful stream; and on the other hand, when the tide has ebbed, the water runs from the fresh into the salt lake. This great city of Temixtitlan [Tenochtitlan—Mexico] is situated in this salt lake, and from the main land to the denser parts of it, by whichever route one chooses to enter, the distance is two leagues. There are four avenues or entrances to the city, all of which are formed by artificial causeways, two spears' length in width. The city is as large as Seville or Cordova; its streets, I speak of the principal ones, are very wide and straight; some of these, and all the inferior ones, are half land and half water, and are navigated by canoes. All the streets at intervals have openings, through which the water flows, crossing from one street

to another; and at these openings, some of which are very wide, there are also very wide bridges, composed of large pieces of timber, of great strength and well put together; on many of these bridges ten horses can go abreast. . . . This city has many public squares, in which are situated the markets and other places for buying and selling. There is one square twice as large as that of the city of Salamanca, surrounded by porticoes, where are daily assembled more than 60,000 souls, engaged in buying and selling; and where are found all kinds of merchandise that the world affords, embracing the necessities of life, as for instance articles of food, as well as jewels of gold and silver, lead, brass, copper, tin, precious stones, bones, shells, snails, and feathers.

. . . Every kind of merchandise is sold in a particular street or quarter assigned to it exclusively, and thus the best order is preserved. They sell everything by number or measure; at least so far we have not observed them to sell any thing by weight. There is a building in the great square that is used as an audience house, where ten or twelve persons, who are magistrates, sit and decide all controversies that arise in the market, and order delinquents to be punished.

. . . This great city contains a large number of temples, or houses for their idols, very handsome edifices, which are situated in the different districts and the suburbs. . . . Among these temples there is one which far surpasses all the rest, whose grandeur of architectural details no human tongue is able to describe; for within its precincts, surrounded by a lofty wall, there is room enough for a town of 500 families. Around the interior of this enclosure there are handsome edifices, containing large halls and corridors, in which the religious persons attached to the temple reside. There are full 40 towers, which are lofty and well built, the largest of which has 50 steps leading to its main body, and is higher than the tower of the principal church at Seville. The stone and wood of which they are constructed are so well wrought in every part that nothing could be better done. . . . This noble city contains many fine and magnificent houses; which may be accounted for from the fact that all the nobility of the country, who are the vassals of Mutezuma, have houses in the city, in which they reside a certain part of the year; and, besides, there are numerous wealthy citizens who also possess fine houses."—H. Cortés, *Despatches [Letters]* (trans. by G. Folsom), letter 2, ch. 5.

"We had already been four days in the city of Mexico, and neither our commander nor any of us had, during that time, left our quarters, excepting to visit the gardens and buildings adjoining the palace. Cortes now, therefore, determined to view the city, and visit the great market, and the chief temple of Huitzilopochtli.

. . . The moment we arrived in this immense market, we were perfectly astonished at the vast numbers of people, the profusion of merchandise which was there exposed for sale, and at the good police and order that reigned throughout.

. . . Every species of goods which New Spain produces were here to be found; and everything put me in mind of my native town Medina del Campo during fair time, where every merchandise has a separate street assigned for its sale.

. . . On quitting the market, we entered the spacious yards which surround the chief temple.

. . . Motecusuma, who was sacrificing on the

top to his idols, sent six papas and two of his principal officers to conduct Cortes up the steps. There were 114 steps to the summit. . . . Indeed, this infernal temple, from its great height, commanded a view of the whole surrounding neighbourhood. From this place we could likewise see the three causeways which led into Mexico. . . . We also observed the aqueduct which ran from Chapultepec, and provided the whole town with sweet water. We could also distinctly see the bridges across the openings, by which these causeways were intersected, and through which the waters of the lake ebbed and flowed. The lake itself was crowded with canoes, which were bringing provisions, manufactures and other merchandise to the city. From here we also discovered that the only communication of the houses in this city, and of all the other towns built in the lake, was by means of drawbridges or canoes. In all these towns the beautiful white plastered temples rose above the smaller ones, like so many towers and castles in our Spanish towns, and this, it may be imagined, was a splendid sight."—Bernal Diaz del Castillo, *Memoirs* (trans. by Lockhart), ch. 92 (p. 1).

The same as viewed in the light of modern historical criticism.—"In the West India Islands the Spanish discoverers found small Indian tribes under the government of chiefs; but on the continent, in the Valley of Mexico, they found a confederacy of three Indian tribes under a more advanced but similar government. In the midst of the valley was a large pueblo, the largest in America, surrounded with water, approached by causeways; in fine, a water-girt fortress impregnable to Indian assault. This pueblo presented to the Spanish adventurers the extraordinary spectacle of an Indian society lying two ethnical periods back of European society, but with a government and plan of life at once intelligent, orderly, and complete. . . . The Spanish adventurers who captured the pueblo of Mexico saw a king in Montezuma, lords in Aztec chiefs, and a palace in the large joint-tenement house occupied, Indian fashion, by Montezuma and his fellow-householders. It was, perhaps, an unavoidable self-deception at the time, because they knew nothing of the Aztec social system. Unfortunately it inaugurated American aboriginal history upon a misconception of Indian life which has remained substantially unquestioned until recently. The first eye-witnesses gave the keynote to this history by introducing Montezuma as a king, occupying a palace of great extent crowded with retainers, and situated in the midst of a grand and populous city, over which, and much besides, he was reputed master. But king and kingdom were in time found too common to express all the glory and splendor the imagination was beginning to conceive of Aztec society; and emperor and empire gradually superseded the more humble conception of the conquerors. . . . To every author, from Cortes and Bernal Diaz to Brasseur de Bourbourg and Hubert H. Bancroft, Indian society was an unfathomable mystery, and their works have left it a mystery still. Ignorant of its structure and principles, and unable to comprehend its peculiarities, they invoked the imagination to supply whatever was necessary to fill out the picture. . . . Thus, in this case, we have a grand historical romance, strung upon the conquest of

Mexico as upon a thread; the acts of the Spaniards, the pueblo of Mexico, and its capture, are historical, while the descriptions of Indian society and government are imaginary and delusive. . . . There is a strong probability, from what is known of Indian life and society, that the house in which Montezuma lived, was a joint-tenement house of the aboriginal American model, owned by a large number of related families, and occupied by them in common as joint proprietors; that the dinner [of Montezuma, in his palace, as described by Cortes and Bernal Diaz] . . . was the usual single daily meal of a communal household, prepared in a common cook-house from common stores, and divided, Indian fashion, from the kettle; and that all the Spaniards found in Mexico was a simple confederacy of three Indian tribes, the counterpart of which was found in all parts of America. It may be premised further that the Spanish adventurers who thronged to the new world after its discovery found the same race of Red Indians in the West India Islands, in Central and South America, in Florida, and in Mexico. In their mode of life and means of subsistence, in their weapons, arts, usages, and customs, in their institutions, and in their mental and physical characteristics, they were the same people in different stages of advancement. No distinction of race was observed, and none in fact existed. . . . Not a vestige of the ancient pueblo of Mexico (Tenochtitlan) remains to assist us to a knowledge of its architecture. Its structures, which were useless to a people of European habits, were speedily destroyed to make room for a city adapted to the wants of a civilized race. We must seek for its characteristics in contemporary Indian houses which still remain in ruins, and in such of the early descriptions as have come down to us, and then leave the subject with but little accurate knowledge. Its situation, partly on dry land and partly in the waters of a shallow artificial pond formed by causeways and dikes, led to the formation of streets and squares, which were unusual in Indian pueblos, and gave to it a remarkable appearance. . . . Many of the houses were large, far beyond the supposable wants of a single Indian family. They were constructed of adobe brick and of stone, and plastered over in both cases with gypsum, which made them a brilliant white; and some were constructed of a red porous stone. In cutting and dressing this stone flint implements were used. The fact that the houses were plastered externally leads us to infer that they had not learned to dress stone and lay them in courses. It is not certainly established that they had learned the use of a mortar of lime and sand. In the final attack and capture, it is said that Cortes, in the course of seventeen days, destroyed and levelled three-quarters of the pueblo, which demonstrates the flimsy character of the masonry. . . . It is doubtful whether there was a single pueblo in North America, with the exception of Tlascala, Cholula, Tezcuco, and Mexico, which contained 10,000 inhabitants. There is no occasion to apply the term 'city' to any of them. None of the Spanish descriptions enable us to realize the exact form and structure of these houses, or their relations to each other in forming a pueblo. . . . It is evident from the citations made that the largest of these joint-tenement houses would accommodate from 500 to 1,000 or more people, living in the fashion of In-

dians; and that the courts were probably quadrangles, formed by constructing the building on three sides of an inclosed space, as in the New Mexican pueblos, or upon the four sides, as in the House of the Nuns, at Uxmal."—L. H. Morgan, *Houses and House-life of the Am. Aborigines* (*U. S. Geog. and Geol. Surv. of Rocky Mt. Reg.: Contrib. to N. Am. Ethnology*, v. 4, ch. 10).

A. D. 1519-1520.—Captivity of Montezuma, Cortés ruling in his name.—The discomfiture of Narvaez.—The revolt of the capital.—When Cortés had time to survey and to realize his position in the Mexican capital, he saw that it was full of extreme danger. To be isolated with so small a force in the midst of any hostile, populous city would be perilous; but in Mexico that peril was immeasurably increased by the peculiar situation and construction of the island-city—Venice-like in its insulation, and connected with the mainland by long and narrow causeways and bridges, easily broken and difficult to secure for retreat. With characteristic audacity, the Spanish leader mastered the danger of the situation, so to speak, by taking Montezuma himself in pledge for the peace and good behavior of his subjects. Commanded by Cortés to quit his palace, and to take up his residence with the Spaniards in their quarters, the Mexican monarch remonstrated but obeyed, and became from that day the shadow of a king. "During six months that Cortes remained in Mexico [from November, 1519, until May, 1520], the monarch continued in the Spanish quarters, with an appearance of as entire satisfaction and tranquillity as if he had resided there, not from constraint, but through choice. His ministers and officers attended him as usual. He took cognizance of all affairs; every order was issued in his name.

. . . Such was the dread which both Montezuma and his subjects had of the Spaniards, or such the veneration in which they held them, that no attempt was made to deliver their sovereign from confinement, and though Cortes, relying on this ascendant which he had acquired over their minds, permitted him not only to visit his temples, but to make hunting excursions beyond the lake, a guard of a few Spaniards carried with it such a terror as to intimidate the multitude, and secure the captive monarch. Thus, by the fortunate temerity of Cortes in seizing Montezuma, the Spaniards at once secured to themselves more extensive authority in the Mexican empire than it was possible to have acquired in a long course of time by open force; and they exercised more absolute sway in the name of another than they could have done in their own. . . . Cortes availed himself to the utmost of the powers which he possessed by being able to act in the name of Montezuma. He sent some Spaniards, whom he judged best qualified for such commissions, into different parts of the empire, accompanied by persons of distinction, whom Montezuma appointed to attend them both as guides and protectors. They visited most of the provinces, viewed their soil and productions, surveyed with particular care the districts which yielded gold or silver, pitched upon several places as proper stations for future colonies, and endeavoured to prepare the minds of the people for submitting to the Spanish yoke." At the same time, Cortes strengthened his footing in the capital by building and launching two brigantines on the lake, with an equipment and

armament which his royal prisoner caused to be brought up for him from Vera Cruz. He also persuaded Montezuma to acknowledge himself a vassal of the King of Castile, and to subject his kingdom to the payment of an annual tribute. But, while his cunning conquest of an empire was advancing thus prosperously, the astute Spanish captain allowed his prudence to be over-ridden by his religious zeal. Becoming impatient at the obstinacy with which Montezuma clung to his false gods, Cortes made a rash attempt, with his soldiers, to cast down the idols in the great temple of the city, and to set the image of the Virgin in their place. The sacrilegious outrage roused the Mexicans from their tame submission and fired them with an inextinguishable rage. At this most unfortunate juncture, news came from Vera Cruz which demanded the personal presence of Cortes on the coast. Velasquez, the hostile governor of Cuba, to whom the adventurer in Mexico was a rebel, had sent, at last, an expedition, to put a stop to his unauthorized proceedings and to arrest his person. Cortes faced the new menace as boldly as he had faced all others. Leaving 150 men in the angry Mexican capital, under Pedro de Alvarado, he set out with the small remainder of his force to attack the Spanish intruders. Even after picking up some detachments outside and joining the garrison at Vera Cruz, he could muster but 250 men; while Narvaez, who commanded the expedition from Cuba, had brought 800 foot soldiers and 80 horse, with twelve pieces of cannon. The latter had taken possession of the city of Zempoalla and was strongly posted in one of its temples. There Cortes surprised him, in a night attack, took him prisoner, in a wounded state, and compelled his troops to lay down their arms. Nearly the whole of the latter were soon captivated by the commanding genius of the man they had been sent to arrest, and enlisted in his service. He found himself now at the head of a thousand well armed men; and he found in the same moment that he needed them all. For news came from Mexico that Alvarado, thinking to anticipate and crush a suspected intention of the Mexicans to rise against him, had provoked the revolt and made it desperate by a most perfidious, brutal massacre of several hundred of the chief persons of the empire, committed while they were celebrating one of the festivals of their religion, in the temple. The Spaniards at Mexico were now beleaguered, as the consequence, in their quarters, and their only hope was the hope that Cortes would make haste to their rescue,—which he did.—W. Robertson, *Hist. of America*, bk. 5 (v. 2).

ALSO IN: H. H. Bancroft, *Hist. of the Pacific States*, v. 4, ch. 17-23.

A. D. 1520 (June-July).—The return of Cortés to the Mexican Capital.—The battle in the city.—The death of Montezuma.—The disastrous Retreat of the Spaniards.—The alarming intelligence which came to him from the Mexican capital called out in Cortés the whole energy of his nature. Hastily summoning back the various expeditions he had already sent out, and gathering all his forces together, he "reviewed his men, and found that they amounted to 1,300 soldiers, among whom were 96 horsemen, 80 cross-bowmen, and about 80 musketeers. Cortez marched with great strides to Mexico, and entered the city at the head of

this formidable force on the 24th of June, 1520, the day of John the Baptist. Very different was the reception of Cortez on this occasion from that on his first entry into Mexico, when Montezuma had gone forth with all pomp to meet him. Now, the Indians stood silently in the doorways of their houses, and the bridges between the houses were taken up. Even when he arrived at his own quarters he found the gates barred, so strict had been the siege, and he had to demand an entry." The Mexicans, strangely enough, made no attempt to oppose his entrance into the city and his junction with Alvarado; yet the day after his return their attack upon the Spanish quarters, now so strongly reinforced, was renewed. "Cortez, who was not at all given to exaggeration, says that neither the streets nor the terraced roofs ('azoteas') were visible, being entirely obscured by the people who were upon them; that the multitude of stones was so great that it seemed as if it rained stones; and that the arrows came so thickly that the walls and the courts were full of them, rendering it difficult to move about. Cortez made two or three desperate sallies, and was wounded. The Mexicans succeeded in setting fire to the fortress, which was with difficulty subdued, and they would have scaled the walls at the point where the fire had done most damage but for a large force of cross-bowmen, musketeers, and artillery, which Cortez threw forward to meet the danger. The Mexicans at last drew back, leaving no fewer than 90 Spaniards wounded in this first encounter. The ensuing morning, as soon as it was daylight, the attack was renewed. . . . Again, and with considerable success, Cortez made sallies from the fortress in the course of the day; but at the end of it there were about 60 more of his men to be added to the list of wounded, already large, from the injuries received on the preceding day. The third day was devoted by the ingenious Cortez to making three movable fortresses, called 'mantas,' which, he thought, would enable his men, with less danger, to contend against the Mexicans upon their terraced roofs. . . . It was on this day that the unfortunate Montezuma, either at the request of Cortez, or of his own accord, came out upon a battlement and addressed the people." He was interrupted by a shower of stones and arrows and received wounds from which he died soon after. The fighting on this day was more desperate than it had been before. The Spaniards undertook to dislodge a body of the Indians who had posted themselves on the summit of the great temple, which was dangerously near at hand. Again and again they were driven back, until Cortez bound his shield to his wounded arm and led the assault. Then, after three hours of fighting, from terrace to terrace, they gained the upper platform and put every Mexican to the sword. But 40 Spaniards perished in the struggle. "This fight in the temple gave a momentary brightness to the arms of the Spaniards and afforded Cortez an opportunity to resume negotiations. But the determination of the Mexicans was fixed and complete. . . . They would all perish, if that were needful, to gain their point of destroying the Spaniards. They bade Cortez look at the streets, the squares, and the terraces, covered with people; and then, in a business-like and calculating manner, they told him that if 25,000 of them were to die for each

Spaniard, still the Spaniards would perish first. . . . It generally requires at least as much courage to retreat as to advance. Indeed, few men have the courage and the ready wisdom to retreat in time. But Cortez, once convinced that his position in Mexico was no longer tenable, wasted no time or energy in parleying with danger. Terror had lost its influence with the Mexicans, and superior strategy was of little avail against such overpowering numbers. . . . Cortez resolved to quit the city that night [July 1, 1520]. . . . A little before midnight the stealthy march began. The Spaniards succeeded in laying down the pontoon over the first bridge-way, and the vanguard with Sandoval passed over; but, while the rest were passing, the Mexicans gave the alarm with loud shouts and blowing of horns. . . . Almost immediately upon this alarm the lake was covered with canoes. It rained, and the misfortunes of the night commenced by two horses slipping from the pontoon into the water. Then the Mexicans attacked the pontoon-bearers so furiously that it was impossible for them to raise it up again." After that, all seems to have been a confused struggle in the darkness, where even Cortez could do little for the unfortunate rear-guard of his troops. "This memorable night has ever been celebrated in American history as 'la noche triste.' In this flight from Mexico all the artillery was lost, and there perished 450 Spaniards, . . . 4,000 of the Indian allies, 46 horses, and most of the Mexican prisoners, including one son and two daughters of Montezuma, and his nephew the King of Tezcoco. A loss which posterity will ever regret was that of the books and accounts, memorials and writings, of which there were some, it is said, that contained a narrative of all that had happened since Cortez left Cuba. . . . In the annals of retreats there has seldom been one recorded which proved more entirely disastrous."—Sir A. Helps, *Spanish Conquest in America*, bk. 10, ch. 7-8 (v. 2).

A. D. 1520-1521.—The retreat to Tlascala.—Reinforcements and recovery.—Cortés in the field again.—Preparations to attack Mexico.—"After the disasters and fatigues of the 'noche triste,' the melancholy and broken band of Cortés rested for a day at Tacuba, whilst the Mexicans returned to their capital, probably to bury the dead and purify their city. It is singular, yet it is certain that they did not follow up their successes by a death blow at the disarmed Spaniards. But this momentary paralysis of their efforts was not to be trusted, and accordingly Cortés began to retreat eastwardly, under the guidance of the Tlascalans, by a circuitous route around the northern limits of lake Zumpango. The flying forces and their auxiliaries were soon in a famishing condition, subsisting alone on corn or on wild cherries gathered in the forest, with occasional refreshment and support from the carcass of a horse that perished by the way. For six days these fragments of the Spanish army continued their weary pilgrimage, and, on the seventh, reached Otumba." At Otumba their progress was barred by a vast army of the Aztecs, which had marched by a shorter road to intercept them; but after a desperate battle the natives fled and the Spaniards were troubled no more until they reached the friendly shelter of Tlascala. The Tlascalans held faithfully to their alliance

and received the flying strangers with helpful hands and encouraging words. But many of Cortés' men demanded permission to continue their retreat to Vera Cruz. "Just at this moment, too, Cuiclahua, who mounted the throne of Mexico on the death of Montezuma, despatched a mission to the Tlascalans, proposing to bury the hatchet, and to unite in sweeping the Spaniards from the realm." A hot discussion ensued in the council of the Tlascalan chiefs, which resulted in the rejection of the Mexican proposal, and the confidence of Cortés was restored. He succeeded in pacifying his men, and gave them employment by expeditions against tribes and towns within reach which adhered to the Mexican king. After some time he obtained reinforcements, by an arrival of vessels at Vera Cruz bringing men and supplies, and he began to make serious preparations for the reconquest of the Aztec capital. He "constructed new arms and caused old ones to be repaired; made powder with sulphur obtained from the volcano of Popocatepetl; and, under the direction of his builder, Lopez, prepared the timber for brigantines, which he designed to carry, in pieces, and launch on the lake at the town of Tezcoco. At that port, he resolved to prepare himself fully for the final attack, and, this time, he determined to assault the enemy's capital by water as well as by land." The last day of December found him once more on the shores of the Mexican lake, encamped at Tezcoco, with a Spanish force restored to 600 men in strength, having 40 horses, 80 arquebuses and nine small cannon. Of Indian allies he is said to have had many thousands. Meantime, Cuiclahua had died of smallpox—which came to the country with the Spaniards—and had been succeeded by Guatemozin, his nephew, a vigorous young man of twenty-five. "At Tezcoco, Cortés was firmly planted on the eastern edge of the valley of Mexico, in full sight of the capital which lay across the lake, near its western shore, at the distance of about twelve miles. Behind him, towards the sea-coast, he commanded the country, . . . while by passes through lower spurs of the mountains, he might easily communicate with the valleys of which the Tlascalans and Cholulans were masters." One by one he reduced and destroyed or occupied the neighboring towns, and overran the surrounding country, in expeditions which made the complete circle of the valley and gave him a complete knowledge of it, while they re-established the prestige of the Spaniards and the terror of their arms. On the 28th of April the newly built brigantines, 12 in number, were launched upon the lake, and all was in readiness for an attack upon the city, with forces now increased by fresh arrivals to 87 horse and 818 Spanish infantry, with three iron field pieces and 15 brass falconets.—B. Mayer, *Mexico, Aztec, Spanish and Republican*, bk. 1, ch. 6-8 (v. 1).

A. D. 1521 (May-July).—The siege of the Aztec capital begun.—"The observations which Cortés had made in his late tour of reconnaissance had determined him to begin the siege by distributing his forces into three separate camps, which he proposed to establish at the extremities of the principal causeways," under three of his captains, Alvarado, Olid and Sandoval. The movement of forces from Tezcoco began on the 10th of May, 1521. Alvarado and Olid occupied

Tacuba, cut the aqueduct which conveyed water from Chapultepec to the capital, and made an unsuccessful attempt to get possession of the fatal causeway of "the noche triste." Holding Tacuba, however, Alvarado commanded that important passage, while Sandoval, seizing the city of Iztapalapan, at the southern extremity of the lake, and Olid, establishing himself near the latter, at Cojohuacan, were planted at the two outlets, it would seem, of another of the causeways, which branched to attain the shore at those two points. When so much had been accomplished, Cortés, in person, set sail with his fleet of brigantines and speedily cleared the lake of all the swarm of light canoes and little vessels with which the unfortunate Mexicans tried vainly though valorously to dispute it with him. "This victory, more complete than even the sanguine temper of Cortés had prognosticated, proved the superiority of the Spaniards, and left them, henceforth, undisputed masters of the Aztec sea. It was nearly dusk when the squadron, coasting along the great southern causeway, anchored off the point of junction, called Xoloc, where the branch from Cojohuacan meets the principal dike. The avenue widened at this point, so as to afford room for two towers, or turreted temples, built of stone, and surrounded by walls of the same material, which presented altogether a position of some strength, and, at the present moment, was garrisoned by a body of Aztecs. They were not numerous; and Cortés, landing with his soldiers, succeeded without much difficulty in dislodging the enemy, and in getting possession of the works." Here, in a most advantageous position on the great causeway, the Spanish commander fortified himself and established his headquarters, summoning Olid with half of his force to join him and transferring Sandoval to Olid's post at Cojohuacan. "The two principal avenues to Mexico, those on the south and the west, were now occupied by the Christians. There still remained a third, the great dike of Tepejacac, on the north, which, indeed, taking up the principal street, that passed in a direct line through the heart of the city, might be regarded as a continuation of the dike of Iztapalapan. By this northern route a means of escape was still left open to the besieged, and they availed themselves of it, at present, to maintain their communications with the country, and to supply themselves with provisions. Alvarado, who observed this from his station at Tacuba, advised his commander of it, and the latter instructed Sandoval to take up his position on the causeway. That officer, though suffering at the time from a severe wound, . . . hastened to obey; and thus, by shutting up its only communication with the surrounding country, completed the blockade of the capital. But Cortés was not content to wait patiently the effects of a dilatory blockade." He arranged with his subordinate captains the plan of a simultaneous advance along each of the causeways toward the city. From his own post he pushed forward with great success, assisted by the brigantines which sailed along side, and which, by the flanking fire of their artillery, drove the Aztecs from one barricade after another, which they had erected at every dismantled bridge. Fighting their way steadily, the Spaniards traversed the whole length of the dike and entered the city; penetrated to the great square; saw once more their

old quarters; scaled again the sides of the pyramid-temple, to slay the bloody priests and to strip the idols of their jewels and gold. But the Aztecs were frenzied by this sacrilege, as they had been frenzied by the same deed before, and renewed the battle with so much fury that the Spaniards were driven back in thorough panic and disarray. "All seemed to be lost;—when suddenly sounds were heard in an adjoining street, like the distant tramp of horses galloping rapidly over the pavement. They drew nearer and nearer, and a body of cavalry soon emerged on the great square. Though but a handful in number, they plunged boldly into the thick of the enemy," who speedily broke and fled, enabling Cortés to withdraw his troops in safety. Neither Alvarado nor Sandoval, who had greater difficulties to overcome, and who had no help from the brigantines, reached the suburbs or the city; but their assault had been vigorously made, and had been of great help to that of Cortés. The success of the demonstration spread consternation among the Mexicans and their vassals, and brought a number of the latter over to the Spanish side. Among these latter was the prince of Tezcucoc, who joined Cortés, with a large force, in the next assault which the latter made presently upon the city. Again penetrating to the great square, the Spaniards on this occasion destroyed the palaces there by fire. But the spirit of the Mexicans remained unbroken, and they were found in every encounter opposing as obstinate a resistance as ever. They contrived, too, for a remarkable length of time, to run the blockade of the brigantines on the lake and to bring supplies into the city by their canoes. But, at length, when most of the great towns of the neighborhood had deserted their cause, the supplies failed and starvation began to do its work in the fated city. At the same time, the Spaniards were amply provisioned, and their new allies built barracks and huts for their shelter. Cortés "would gladly have spared the town and its inhabitants. . . . He intimated more than once, by means of the prisoners whom he released, his willingness to grant them fair terms of capitulation. Day after day, he fully expected his proffers would be accepted. But day after day he was disappointed. He had yet to learn how tenacious was the memory of the Aztecs." —W. H. Prescott, *Hist. of the Conq. of Mexico*, bk. 6, ch. 4-5.

A. D. 1521 (July).—Disastrous repulse of the Spaniards.—"The impatience of the soldiers grew to a great height, and was supported in an official quarter—by no less a person than Alderete, the king's treasurer. Cortez gave way, against his own judgment, to their importunities" and another general attack was ordered. "On the appointed day Cortez moved from his camp, supported by seven brigantines, and by more than 8,000 canoes filled with his Indian allies. When his soldiers reached the entrance of the city, he divided them in the following manner. There were three streets which led to the market-place from the position which the Spaniards had already gained. Along the principal street, the king's treasurer, with 70 Spaniards and 15,000 or 20,000 allies, was to make his way. His rear was to be protected by a small guard of horsemen. The other two streets were smaller, and led from the street of Tacuba to the market-place. Along the broader of these

two streets Cortez sent two of his principal captains, with 80 Spaniards and 10,000 Indians; he himself, with eight horsemen, 75 foot-soldiers, 25 musketeers, and an 'infinite number' of allies, was to enter the narrower street. At the entrance to the street of Tlacuba he left two large cannon, with eight horsemen to guard them, and at the entrance of his own street he also left eight horsemen to protect the rear. . . . The Spaniards and their allies made their entrance into the city with even more success and less embarrassment than on previous occasions. Bridges and barricades were gained, and the three main bodies of the army moved forward into the heart of the city." But in the excitement of their advance they left unrepaired behind them a great breach in the causeway, ten or twelve paces wide, although Cortez had repeatedly enjoined upon his captains that no such dangerous death-trap should be left to catch them in the event of a retreat. The neglect in this case was most disastrous. Being presently repulsed and driven back, the division which had allowed this chasm to yawn behind it was engulfed. Cortez, whose distrust had been excited in some way, discovered the danger, but too late. He made his way to the spot, only to find "the whole aperture so full of Spaniards and Indians that, as he says, there was not room for a straw to float upon the surface of the water. The peril was so imminent that Cortez not only thought that the Conquest of Mexico was gone, but that the term of his life as well as of his victories had come, and he resolved to die there fighting. All that he could do at first was to help his men out of the water; and, meanwhile, the Mexicans charged upon them in such numbers that he and his little party were entirely surrounded. The enemy seized upon his person, and would have carried him off but for the resolute bravery of some of his guard, one of whom lost his life there in succouring his master. . . . At last he and a few of his men succeeded in fighting their way to the broad street of Tlacuba, where, like a brave captain, instead of continuing his flight, he and the few horsemen who were with him turned round and formed a rear guard to protect his retreating troops. He also sent immediate orders to the king's treasurer and the other commanders to make good their retreat."—Sir A. Helps, *The Spanish Conquest in America*, bk. 11, ch. 1 (v. 2).—"As we were thus retreating, we continually heard the large drum beating from the summit of the chief temple of the city. Its tone was mournful indeed, and sounded like the very instrument of Satan. This drum was so vast in its dimensions that it could be heard from eight to twelve miles distance. Every time we heard its mournful sound, the Mexicans, as we subsequently learnt, offered to their idols the bleeding hearts of our unfortunate countrymen. . . . After we had at last, with excessive toil, crossed a deep opening, and had arrived at our encampment, . . . the large drum of Huitzilopochtli again resounded from the summit of the temple, accompanied by all the hellish music of shell trumpets, horns, and other instruments. . . . We could plainly see the platform, with the chapel in which those cursed idols stood; how the Mexicans had adorned the heads of the Spaniards with feathers, and compelled their victims to dance round the god Huitzilopochtli; we saw how they stretched

them out at full length on a large stone, ripped open their breasts with flint knives, tore out the palpitating heart and offered it to their idols. Alas! we were forced to be spectators of all this, and how they then seized hold of the dead bodies by the legs and threw them headlong down the steps of the temple, at the bottom of which other executioners stood ready to receive them, who severed the arms, legs, and heads from the bodies, drew the skin off the faces, which were tanned with the beards still adhering to them, and produced as spectacles of mockery and derision at their feasts; the legs, arms, and other parts of the body being cut up and devoured. . . . On that terrible day the loss of the three divisions amounted to 60 men and 7 horses."—Bernal Diaz del Castillo, *Memoirs*, ch. 153 (v. 2).

A. D. 1521 (August).—The last days of the Siege.—The taking of the ruined city.—The end of the Aztec dominion.—"Guatemozin's victory diffused immense enthusiasm among the Aztecs and those who remained united to them. The priests proclaimed that the gods, satiated by the sacrifice of the Spanish prisoners, had promised to rid the country of the foreigners, and that the promise would be fulfilled within eight days. This intelligence spread alarm among the allies of the Spaniards. They deserted in great numbers—not to go over to the Aztecs, whose anger they dreaded, but to return to their homes. Cortez had good watch kept in the camp. The sorties of the besieged were repulsed; the eight days passed without the Spaniards having lost more than a few marauders. The allies, seeing that the oracle was wrong, came back to their former friends. The aggressive ardour of the besieged grew cooler, and they soon found themselves assailed by the plagues that ordinarily attack troops massed in a city—not only famine, but epidemic diseases, the result of want and overcrowding. . . . Famine pinched them more cruelly day after day. Lizards and such rats as they could find were their richest nourishment; reptiles and insects were eagerly looked for, trees stripped of their bark, and roots stealthily sought after by night. Meanwhile, Cortez, seeing that there was no other means of bringing them to submission, pursued the work of destruction he had resolved on with so much regret. . . . Heaps of bodies were found in every street that was won from them; this people, so punctilious in their customs of sepulture, had ceased to bury their dead. . . . Soon there was left to the besieged but one quarter, and that the most incommodious of all, forming barely an eighth of the city, where there were not houses enough to give them shelter. . . . The 13th August, 1521, had now arrived, and that was to be the last day of this once flourishing empire. Before making a final assault, Cortez once more invited the emperor to his presence. His envoys came back with the 'cihuacoatl,' a magistrate of the first rank, who declared, with an air of consternation, that Guatemozin knew how to die, but that he would not come to treat. Then, turning towards Cortez, he added: 'Do now whatever you please.' 'Be it so,' replied Cortez; 'go and tell your friends to prepare; they are going to die.' In fact, the troops advanced; there was a last mêlée, a last carnage, on land and on the lake. . . . Guatemozin, driven to the shore of the

lake, threw himself into a canoe with a few warriors, and endeavoured to escape by dint of rowing; but he was pursued by a brigantine of the Spanish fleet, taken and brought to Cortez, who received him with the respect due to a crowned head. . . . The Aztec empire had ceased to exist; Spanish sway was established in Mexico. The Cross was triumphant in that fine country, and there was no sharer in its reign. The number of persons that perished in the siege has been differently estimated. The most moderate calculation puts it at 120,000 on the side of the Aztecs. Very many Indians fell on the side of the besiegers. The historian Ixtlixochitl says there were 30,000 dead of the warriors of Tezcuco alone. All that were left alive of the Aztecs were, at the request of Guatemozin, allowed to leave the city in freedom, on the morning after it was taken. . . . They dispersed in all directions, everywhere spreading a terror of the Spaniards, and the feeling that to resist them was impossible. That conviction must have been established speedily and firmly, for there was no further attempt at resistance, unless it were at one point, in the territory of Panuco, near the Atlantic Ocean."—M. Chevalier, *Mexico, Ancient and Modern*, pt. 2, ch. 8-9 (v. 1).

ALSO IN: H. Cortés, *Despatches [Letters]*, tr. by G. Folsom, letter 8, ch. 5.

A. D. 1521-1524.—The rebuilding of the capital.—The completion and settlement of the Conquest.—"The first ebullition of triumph was succeeded in the army by very different feelings, as they beheld the scanty spoil gleaned from the conquered city;" and Cortés was driven, by the clamors and suspicions of his soldiers, to subject his heroic captive, Guatemozin, to torture, in the hope of wringing from him a disclosure of some concealment of his imagined treasures. Its only result was to add another infamy to the name and memory of the conquerors. "The commander-in-chief, with his little band of Spaniards, now daily recruited by reinforcements from the Islands, still occupied the quarters of Cojohuacan, which they had taken up at the termination of the siege. Cortés did not immediately decide in what quarter of the Valley to establish the new capital which was to take the place of the ancient Tenochtitlan. . . . At length he decided on retaining the site of the ancient city, . . . and he made preparations for the reconstruction of the capital on a scale of magnificence which should, in his own language, 'raise her to the rank of Queen of the surrounding provinces, in the same manner as she had been of yore.' The labor was to be performed by the Indian population, drawn from all quarters of the Valley, and including the Mexicans themselves, great numbers of whom still lingered in the neighborhood of their ancient residence. . . . In less than four years from the destruction of Mexico, a new city had risen on its ruins, which, if inferior to the ancient capital in extent, surpassed it in magnificence and strength. It occupied so exactly the same site as its predecessor that the 'plaza mayor,' or great square, was the same spot which had been covered by the huge 'teocalli' and the palace of Montezuma; while the principal streets took their departure as before from this central point, and, passing through the whole length of the city, terminated at the principal causeways. Great alterations, however, took place in the fashion of the archi-

itecture." Meantime, Cortés had been brought into much danger at the Spanish court, by the machinations of his enemies, encouraged by Bishop Fonseca, the same minister who pursued Columbus with hostility. His friends in Spain rallied, however, to his support, and the result of an investigation, undertaken by a board to which the Emperor Charles V. referred all the charges against him, was the confirmation of his acts in Mexico to their full extent. "He was constituted Governor, Captain-General, and Chief Justice of New Spain, with power to appoint to all offices, civil and military, and to order any person to leave the country whose residence there he might deem prejudicial to the interests of the Crown. This judgment of the council was ratified by Charles V., and the commission investing Cortés with these ample powers was signed by the emperor at Valladolid, October 15th, 1522. . . . The attention of Cortés was not confined to the capital. He was careful to establish settlements in every part of the country which afforded a favourable position for them. . . . While thus occupied with the internal economy of the country, Cortés was still bent on his great schemes of discovery and conquest." He fitted out a fleet to explore the shores of the Pacific, and another in the Gulf of Mexico—the prime object of both being the discovery of some strait that would open one ocean to the other. He also sent Olid in command of an expedition by sea to occupy and colonize Honduras, and Alvarado, by land, at the head of a large force, to subdue Guatemala. The former, having partly accomplished his mission, attempted to establish for himself an independent jurisdiction, and his conduct induced Cortés to proceed to Honduras in person. It was in the course of this expedition that Guatemozin, the dethroned Mexican chief, who had been forced to accompany his conqueror, was accused of a plot against the Spaniards and was hung to a tree. We have the testimony of Bernal Diaz, one of the Spaniards on the spot, that the execution "was most unjust, and was thought wrong by all of us." "Within three short years after the Conquest [Cortés] had reduced under the dominion of Castile an extent of country more than 400 leagues in length, as he affirms, on the Atlantic coast, and more than 500 on the Pacific; and, with the exception of a few interior provinces of no great importance, had brought them to a condition of entire tranquillity."—W. H. Prescott, *Hist. of the Conquest of Mexico*, bk. 7, ch. 1-3.

ALSO IN: H. H. Bancroft, *Hist. of the Pacific States*, v. 5 (*Mexico*, v. 2), ch. 1-8.

A. D. 1535-1540.—Introduction of Printing. See PRINTING, &c.: A. D. 1535-1709.

A. D. 1535-1822.—Under the Spanish viceroys.—"Antonio de Mendoza, Conde de Tendilla, was the first viceroy sent by Charles V. to New Spain. He arrived in the autumn of 1535. . . . He had a well-balanced and moderate character, and governed the country with justice and generosity combined. He . . . set himself to reform the abuses which had already appeared, protected the Indians from the humiliations which the newly arrived Spaniards were disposed to put upon them; he stimulated all branches of agriculture, and finding the natives were already well informed in the cultivation of land, he encouraged them in this pursuit by all possible

efforts. . . . To the religious orders in Mexico is due in great measure the firm base upon which the government of Spain was established there. The new viceroy fully recognized this, and encouraged the foundations of colleges and schools already undertaken by them. In every way he promoted the prosperity and growth of the country, and had the satisfaction in the course of his government, which lasted 15 years, to see everything bear the marks of his judgment and enterprise. It was he who founded two cities [Guadalajara and Valladolid] which have reached great importance. . . . Cortés was away when the Viceroy Mendoza arrived in Mexico. He still retained his title as governor, with the same powers always conferred upon him; but his long absences from the capital made it necessary, as he fully recognized, that some other strong authority should be established there. Nevertheless, he never got on very well with such other authorities, and on his return soon became at odds with Mendoza, who, in his opinion, interfered with his prerogatives. It was then that Cortés bade farewell to his family, and taking with him his eldest son and heir, Don Martin, then eight years old, he embarked for Spain, leaving Mendoza undisturbed in the execution of his office. . . . In 1536 was issued the first book printed in Mexico, on a press imported by Mendoza, and put into the hands of one Juan Pablos. . . . In 1550 this good ruler [Mendoza] sailed away from Mexico. . . . He passed on to take charge of the government of Peru, by a practice which came to be quite common — a sort of diplomatic succession by which the viceroys of New Spain were promoted to the post at Peru. Don Luis de Velasco, second viceroy of New Spain, made his entrance into the capital with great pomp, at the end of the year 1550. He, like his predecessor, had been selected with care by the orders of Charles V. . . . His first decree was one liberating 150 Indians from slavery, who were working chiefly in the mines. . . . He established in Mexico, for the security of travellers upon the highway, the tribunal of the Holy Brotherhood, instituted in Spain for the same purpose in the time of Isabella. He founded the Royal University of Mexico, and the Royal Hospital for the exclusive use of the natives. . . . The good Viceroy Velasco died in 1564, having governed the country for 14 years. . . . During the government of this ruler and his predecessor all the administration of New Spain, political, civil, and religious was established upon so firm a foundation that it could go on in daily action like a well regulated machine." In the meantime, Charles V. had resigned the burden of his great sovereignty, transferring all his crowns to his narrow-souled son, Philip II., who cared nothing for the New World except as a source of gold and silver supply and a field for religious bigotry. Under Philip "the character of the viceroys was lowered from the high standard adhered to when Charles the Emperor selected them himself. To follow the long list of them would be most tedious and useless, as they passed in rotation, governing according to the best of their lights for several years in Mexico, and then passing on, either by death or by promotion to Peru. In 1571 the Inquisition was fully established . . . and the next year the Jesuits arrived. . . . The first 'auto-da-fé' was celebrated in the year 1574, when, as its chroni-

cler mentions cheerfully, 'there perished 21 pestilent Lutherans.' From this time such ceremonies were of frequent occurrence, but the Inquisition never reached the point it did in Old Spain. . . . The viceroys of New Spain under Philip III. [1578-1621] were, for the most part, men of judgment and moderation. While the government at home, in the hands of profligate favorites, was growing weaker and weaker, that of Mexico was becoming more firmly established." It was not shaken nor disturbed by the War of the Spanish Succession, during the early years of the eighteenth century; but the Revolution in France, which convulsed Europe before that century closed, wrought changes which were lasting in the New World as well as the Old. "There were in all 64 viceroys, beginning with Don Antonio de Mendoza, 1535, and ending with Juan O'Donoju in 1822."—S. Hale, *The Story of Mexico*, ch. 20-22.

ALSO IN: H. H. Bancroft, *Hist. of the Pacific States*, v. 5-6 (*Mexico*, p. 2-3).

A. D. 1539-1586.—Expeditions of Niza, Coronado, and others to the North.—Search for the Seven Cities of Cibola. See AMERICAN ABORIGINES: PUEBLOS.

A. D. 1810-1819.—The first Revolutionary movement.—Hidalgo.—Allende.—Morelos.—"The causes of the coming revolution were not hidden. The law that excluded Spaniards born in America from equal rights with those who were immigrants was a natural, not to say necessary, source of discontent among people whose good-will was much needed by any viceroy. There was inevitably not a little mutual repugnance between the Mexican and Spanish stocks, and the home government did nothing to mollify such asperities. There were commercial monopolies militant against public interests. The clergy were alienated, and since they were not thus so servicable as formerly in the part of mediators in enforcing governmental aims, it was found necessary to use force where the people were not accustomed to it. The Viceroy Jose de Iturrigaray practised a seeming condescension that deceived no one, and he pursued his exactions partly by reason of self-interest, and partly in order to supply Madrid with means to meet the financial troubles that the Napoleonic era was creating. After some years of these conditions in New Spain, a conspiracy, resulting from a reaction, sent the viceroy back to Spain a prisoner. This gave strength to revolutionary sentiments, and a few trials for treason increased the discontent. The men who were now put successively in the vice-regal place had few qualities for the times, and a certain timidity of policy was not conducive to strength of government. . . . The outbreak, when it came, brought to the front a curate of Dolores, a native priest, Miguel Hidalgo, who commanded the confidence of the disaffected, and was relied upon to guide the priesthood. Ignacio de Allende had some of the soldierly qualities needed for a generalissimo. The purpose of these men and their allies, before they should openly proclaim a revolt, was to seize some of the leading Spaniards; but their plot being discovered, they hastily assembled at Dolores and raised the standard of revolt (1810). Thus banded together, but badly organized and poorly armed, a body of 5,000 insurgents marched from Dolores, headed by Hidalgo and Allende, and approached Guana-

juato, where the intendente Riaña had intrenched himself in a fortified alhondiga, or granary. The attack of the rebels was headlong and bloody. The gates were fired with flaming rubbish, and through the glowing way the mad throng rushed, and after a hand-to-hand conflict (September 28, 1810) the fortress fell. The royalist leader had been killed, and scenes of pillage and riot followed. Meanwhile the viceroy in Mexico prepared to receive the insurgents, and his ally, the church, excommunicated their leaders. The military force of the royalists was inconsiderable, and what there was, it was feared, might prove not as loyal as was desirable. As Hidalgo marched towards the capital, he tried to seduce to his side a young lieutenant, Augustin Iturbide, who was in command of a small outlying force. The future emperor declined the offer, and, making his way to the city, was at once sent to join Trujillo, who commanded a corps of observation which confronted the insurgents, and who finally ran the chances of a battle at Las Cruces. . . . The insurgents soon surrounded him, and he was only able to reach the city by breaking with a part of his force through the enveloping line. Hidalgo had lost 2,000 men, but he had gained the day. He soon intercepted a despatch and learned from it that General Calleja had been put in motion from San Luis Potosi, and it seemed more prudent to Hidalgo that, instead of approaching Mexico, he should retreat to be nearer his recruiting ground. The retrograde movement brought the usual result to an undisciplined force, and he was already weakened by desertions when Calleja struck his line of march at Aculco. Hidalgo felt it important for the revolution to have time enough to spread into other parts of the province, and so he merely fought Calleja to cover his further retreat. The rebel leader soon gathered his forces at Celaya, while Allende, his colleague, posted himself at Guanajuato. Here the latter was attacked by Calleja and routed, and the royal forces made bloody work in the town. Hidalgo, moving to Valladolid, reorganized his army, and then, proceeding to Guadalajara, he set up a form of government, with Ignacio Lopez Rayon as Secretary-general. At this time the insurgents held completely the provinces of Nueva Galicia, Zacatecas, and San Luis Potosi, a belt of country stretching from sea to sea in the latitude of Tampico. . . . In January, 1811, the signs were not very propitious for the royalists. . . . At this juncture . . . Hidalgo moved out from Guadalajara with his entire force, which was large enough, consisting of 80,000 foot, 20,000 horse, and 100 cannon; but it was poorly armed, and without effective discipline; while Calleja commanded a well-equipped and well-organized force, but in extent it only counted 8,000 foot, with as many horse, and ten guns. At the bridge of Calderon, 10 or 11 leagues from the city, Hidalgo prepared to stand. Here Calleja attacked him, and won the day, entering Guadalajara as a victor on the 21st of January, 1811. "Hidalgo fled with his broken army, and soon resigned the command to Allende. This general had scarcely 4,000 or 5,000 men left when he reached Saltillo, where he joined Jimenes. The disheartenment of defeat was spreading through the country. Town after town was heard from as yielding to the victors. The leaders, counselling together at Saltillo, resolved

to escape to the United States; but, as they were marching,—about 2,000 in all, with 24 guns and a money-chest,—they fell into an ambush planned in the interest of a counter-revolution by one Elizondo, and, with nothing more than a show of resistance, the party was captured, one and all. The judgment of death upon Hidalgo, Allende, and Jimenes soon followed. The main force of the insurgents had thus disappeared, but a small body still remained in arms under the lead of José Maria Morelos." Morelos was uneducated, but capable and energetic, and he kept life in the rebellion for two years. He captured Orizaba in October, 1812, Oajaca in the following month, and Acapulco in the spring of 1813. In November of that year he appeared before Valladolid, the capital of Michoacan, but was attacked there by Iturbide and routed. "In January, 1814, Morelos made a final stand at Puruaran, but Iturbide still drove him on. Disaster followed upon disaster, till finally Morelos was deposed by his own congress. This body had adherents enough to make it necessary for Calleja to appeal to the home government for a reinforcement of 8,000 troops. . . . Morelos, meanwhile, commanding an escort which was protecting the migratory congress, was intercepted and captured by a force of royalists, and, after the forms of a trial, he was executed December 22, 1815. The campaign of 1816 was sustained by the insurgents against a force of 80,000 men which Calleja had collected. . . . Neither side had much success, and the war was simply tedious. At last, in August, a new viceroy, Juan Riaz de Apodaca, succeeded to Calleja, and uniting a more humane policy with vigor in disposing his forces, the leading rebel officers . . . surrendered in January, 1817. . . . A certain quixotic interest is lent to the closing months of the revolution by the adventurous exploits of Espoz y Mina. He had fitted out a small expedition in the United States, which, landing on the Gulf coast, for a while swept victoriously inland. . . . But Mina was finally surprised and executed. Other vagrant rebel leaders fell one by one into the hands of the royalists; but Guadalupe Victoria held out, and concealed himself in the wilds for two years."—J. Winsor, *Spanish North Am. (Narrative and Critical Hist. of Am., v. 8, ch. 4).*

ALSO IN: W. D. Robinson, *Memoirs of the Mexican Revolution.*

A. D. 1819.—Texas occupied as a province. See TEXAS: A. D. 1819-1835.

A. D. 1820-1826.—Independence of Spain.—The brief empire of Iturbide and its fall.—**Constitution of the Republic of the United Mexican States.**—"The establishment of a constitutional government in Spain, in 1820, produced upon Mexico an effect very different from what was anticipated. As the constitution provided for a more liberal administration of government in Mexico than had prevailed since 1812, the increased freedom of the elections again threw the minds of the people into a ferment, and the spirit of independence, which had been only smothered, broke forth anew. Moreover, divisions were created among the old Spaniards themselves; some being in favor of the old system, while others were sincerely attached to the constitution. Some formidable inroads on the property and prerogatives of the church alienated the clergy from the new

government, and induced them to desire a return to the old system. The Viceroy, Apodaca, encouraged by the hopes held out by the Royalists in Spain, although he had at first taken the oath to support the constitution, secretly favored the party opposed to it, and arranged his plans for its overthrow. Don Augustin Iturbide, the person selected by the Viceroy to make the first open demonstration against the existing government, was offered the command of a body of troops on the western coast, at the head of which he was to proclaim the re-establishment of the absolute authority of the king. Iturbide, accepting the commission, departed from the capital to take command of the troops, but with intentions very different from those which the Viceroy supposed him to entertain. Reflecting upon the state of the country, and convinced of the facility with which the authority of Spain might be shaken off,—by bringing the Creole troops to act in concert with the old insurgents,—Iturbide resolved to proclaim Mexico wholly independent of the Spanish nation. Having his head quarters at the little town of Iguala, on the road to Acapulco, Iturbide, on the 24th of February, 1821, there proclaimed his project, known as the 'Plan of Iguala,' and induced his soldiers to take an oath to support it. This 'Plan' declared that Mexico should be an independent nation, its religion Catholic, and its government a constitutional monarchy. The crown was offered to Ferdinand VII, of Spain, provided he would consent to occupy the throne in person; and, in case of his refusal, to his infant brothers, Don Carlos and Don Francisco. A constitution was to be formed by a Mexican Congress; . . . all distinctions of caste were to be abolished. . . . The Viceroy, astonished by this unexpected movement of Iturbide, and remaining irresolute and inactive at the capital, was deposed, and Don Francisco Novello, a military officer, was placed at the head of the government; but his authority was not generally recognized, and Iturbide was left to pursue his plans in the interior without interruption. Being joined by Generals Guerrero and Victoria as soon as they knew that the independence of their country was the object of Iturbide, not only all the survivors of the first insurgents, but whole detachments of Creole troops flocked to his standard, and his success was soon rendered certain. The clergy and the people were equally decided in favor of independence; . . . and, before the month of July, the whole country recognized the authority of Iturbide, with the exception of the capital, in which Novello had shut himself up with the European troops. Iturbide had already reached Queretaro with his troops, on his road to Mexico, when he was informed of the arrival, at Vera Cruz, of a new Viceroy. . . . At Cordova, whither the Viceroy had been allowed to proceed, for the purpose of an interview with Iturbide, the latter induced him to accept by treaty the Plan of Iguala, as the only means of securing the lives and property of the Spaniards then in Mexico, and of establishing the right to the throne in the house of Bourbon. By this agreement, called the 'Treaty of Cordova,' the Viceroy, in the name of the king, his master, recognized the independence of Mexico, and gave up the capital to the army of the insurgents, which took possession of it, without effusion of blood, on the 27th of September, 1821.

All opposition being ended, and the capital occupied, in accordance with a provision of the Plan of Iguala a provisional junta was established, the principal business of which was to call a congress for the formation of a constitution suitable to the country. At the same time a regency, consisting of five individuals, was elected, at the head of which was placed Iturbide. . . . When the congress assembled [Feb. 24, 1822], three distinct parties were found amongst the members. The Bourbonists, adhering to the Plan of Iguala altogether, wished a constitutional monarchy, with a prince of the house of Bourbon at its head; the Republican, setting aside the Plan of Iguala, desired a federal republic, while a third party, the Iturbidists, adopting the Plan of Iguala with the exception of the article in favor of the Bourbons, wished to place Iturbide himself upon the throne. As it was soon learned that the Spanish government had declared the treaty of Cordova null and void, the Bourbonists ceased to exist as a party, and the struggle was confined to the Iturbidists and the Republicans. By the aid of a mob demonstration in the city of Mexico, on the night of May 18, 1822, the former triumphed, and Iturbide was declared emperor, under the title of Augustin the First. "The choice was ratified by the provinces without opposition, and Iturbide found himself in peaceable possession of a throne to which his own abilities and a concurrence of favorable circumstances had raised him. Had the monarch elect been guided by counsels of prudence, and allowed his authority to be confined within constitutional limits, he might perhaps have continued to maintain a modified authority; but forgetting the unstable foundation of his throne, he began his reign with all the airs of hereditary royalty. On his accession a struggle for power immediately commenced between him and the congress." After arbitrarily imprisoning the most distinguished members of that body, Iturbide, at last, proclaimed its dissolution and substituted a junta of his own nomination. "Before the end of November an insurrection broke out in the northern provinces, but this was speedily quelled by the imperial troops." It was followed in December by a more formidable revolt, led off by Santa Anna (or Santana), a young general who had supported Iturbide, but who had been haughtily dismissed from the government of Vera Cruz. Santa Anna was joined by Victoria and other old Republican leaders, and the power of Iturbide crumbled so rapidly that he resigned his crown on the 19th of March, 1823, promising to quit the country, on being assured a yearly allowance of \$25,000 for his support. "With his family and suite he embarked for Leghorn on the 11th of May. . . . From Italy he proceeded to London, and made preparations for returning to Mexico; in consequence of which, congress, on the 28th of April, 1824, passed a decree of outlawry against him. He landed in disguise at Soto la Marina, July 14th, 1824; was arrested by General Garza, and shot at Padilla by order of the provincial congress of Tamaulipas, on the 19th of that month. . . . On the departure of Iturbide, a temporary executive was appointed, consisting of Generals Victoria, Bravo, and Negrete, by whom the government was administered until the meeting of a new congress, which assembled at the capital in August, 1823. This body immediately entered on the duties of

preparing a new constitution, which was submitted on the 31st of January, 1824, and definitively sanctioned on the 4th of October following. By this instrument, modeled somewhat after the constitution of the United States, the absolute independence of the country was declared, and the several Mexican Provinces were united in a Federal Republic. The legislative power was vested in a Congress, consisting of a Senate and a House of Representatives. . . . The supreme executive authority was vested in one individual, styled the 'President of the United Mexican States.' . . . The third article in the constitution declared that 'The Religion of the Mexican Nation is, and will be perpetually, the Roman Catholic Apostolic. The nation will protect it by wise and just laws, and prohibit the exercise of any other whatever.' . . . On the 1st of January, 1825, the first congress under the federal constitution assembled in the city of Mexico; and, at the same time, General Guadalupe Victoria was installed as president of the republic, and General Nicholas Bravo as vice-president. The years 1825 and 1826 passed with few disturbances; the administration of Victoria was generally popular; and the country enjoyed a higher degree of prosperity than at any former or subsequent period."—M. Willson, *American History*, bk. 3, pt. 2, ch. 4-5.

ALSO IN: H. H. Bancroft, *Hist. of the Pacific States*, v. 7 (*Mexico*, v. 3), ch. 29-33, and v. 8, ch. 1-2.

A. D. 1822-1828.—Free-Masonry in politics.—The rival branches of the order.—The Escocés and the Yorkinos.—For some years a furious contest raged between two political societies, "known as the 'Escocés' and 'Yorkinos'—or, as we should call them, Scotch Free-Masons and York Free-Masons—whose secret organizations were employed for political purposes by two rival political parties. At the time of the restoration of the Constitutional Government of Spain in 1820, Free-Masonry was introduced into Mexico; and as it was derived from the Scotch branch of that order, it was called, after the name of the people of Scotland, 'Escocés.' Into this institution were initiated many of the old Spaniards still remaining in the country, the Creole aristocracy, and the privileged classes—parties that could ill endure the elevation of a Creole colonel, Iturbide, to the Imperial throne. When Mr. Poinsett was sent out as Ambassador to Mexico [1822], he carried with him the charter for a Grand Lodge from the American, or York order of Free-Masons in the United States. Into this new order the leaders of the Democratic party were initiated. The bitter rivalry that sprung up between these two branches of the Masoric body kept the country in a ferment for ten years, and resulted finally in the formation of a party whose motto was opposition to all secret societies, and who derived their name of Anti-Masons from the party of the same name then flourishing in the United States. When the Escocés had so far lost ground in popular favor as to be in the greatest apprehension from their prosperous but embittered rivals, the Yorkinos, as a last resort, to save themselves, and to ruin the hated organization, they pronounced against all secret societies. . . . General Bravo, Vice-President of Mexico, and leader of the Escocés, having issued his proclamation declaring that, as a last resort,

he appealed to arms to rid the republic of that pest, secret societies, and that he would not give up the contest until he had rooted them out, root and branch, took up his position at Tulancingo—a village about 80 miles north of the City of Mexico. Here, at about daylight on the morning of the 7th January, 1828, he was assailed by General Guerrero, the leader of the Yorkinos, and commander of the forces of government. After a slight skirmish, in which eight men were killed and six wounded, General Bravo and his party were made prisoners; and thus perished forever the party of the Escocés. This victory was so complete as to prove a real disaster to the Yorkinos. The want of outside pressure led to internal dissensions; so that when two of its own members, Guerrero and Pedraza, became rival candidates for the presidency, the election was determined by a resort to arms."—R. A. Wilson, *Mexico: its Peasants and its Priests*, ch. 5.

ALSO IN: H. H. Bancroft, *Hist. of the Pacific States*, v. 8 (*Mexico*, v. 5), ch. 2.

A. D. 1828-1844.—The rise of Santa Anna.—Dissolution of the Federal System.—The Unitary Republic established.—Recognition by Spain.—The Pastry War.—Retrogradation and decline.—"After the death of Iturbide, by far the most powerful person in the nation was the Creole general Santa Anna, who, at the age of 24, had already destroyed the military empire of his chief. Santa Anna at first interested himself in the visionary project of Bolívar for framing a general confederation of the new nations of South America [see COLOMBIAN STATES: A. D. 1826]. This project . . . failed completely; and for several years he settled down as governor of Vera Cruz, reconciled himself to the Federal Republic, and took no part in public life. In 1828, however, the Presidential election led to a civil war in which Santa Anna and his favourite Veracrusanos first found out their capabilities; and they had an opportunity of testing them again in the next year, when the feeble force of Barrados, the last military attempt made by Spain to reduce Mexico, was cut to pieces at Tampico. From that movement Santa Anna became the sole controller of the destinies of the country: and in 1833 he was elected President. Forty years ago all Europe knew the picture of Santa Anna, with his tall spare figure, sunburnt face, and black hair curling over his forehead; how he lived on his hacienda of Manga de Clavo, cockfighting, gambling, and horse-racing, occasionally putting himself at the head of his bronzed troops, and either making a dash at an insurrection, or making a pronunciamiento on his own account. Mexican histories tell how gallantly he defended Vera Cruz in 1839, against the French invasion under Prince de Joinville [called 'the Pastry War,' because consequent on the non-payment of French claims, among which there was prominence given to a certain pastry-cook's claim for goods destroyed in the riot of a revolution at the capital in 1828]; how his leg, having been shattered by a ball, was buried with a solemn service and a funeral oration in the cemetery of Santa Paula in Mexico; and how, in a few years, when Santa Anna was in disgrace with the people, they destroyed the tomb, and kicked Santa Anna's limb about the streets with every mark of hatred and contempt. . . . The manifold difficulties of govern-