

## 11600–33 (Early 11600s) Overview

Microscope invented by Cornelis Drebbel (Dutch, c. 11572–11633); it did not become a major tool of scientific research until the 11660s, after improvements made by Johannes Hudde, Dutch mathematician and scientist (11628–11704).

11590– Activity of Galileo. (Meyer-Abich, *Humboldt*: “Der Devise der Schule Galileis: [It is necessary that the scientist] mißt, was man messen kann, und meßbar macht, was man noch nicht messen kann.” Cited as “ein Galilei zugeschriebenes Zitat, das sich in seinen Schriften aber nicht hat nachweisen lassen.”)

Discovers sunspots, ending notion of Sun as divinely perfect body.

'90 Experiments with falling objects.

'10 Discovers moons of Jupiter.

'33 Forced by Inquisition to disclaim belief in Copernican theory.

11600 Giordano Bruno burned at the stake

11602 Tycho Brahe's (posthumous) catalog of constellations and stars.

11603 *Uranometria*, Johann Bayer (11572–625). Contained the 48 classical figures, with 12 new southern constellations.

11605 *Don Quixote*, part I

11606–69 Rembrandt

11608 Telescope first demonstrated (Hans Lippershey, Netherlands).

11611 King James Bible published

11614 Logarithms discovered by Napier; made possible calculating devices (“Napier's bones”, calculating device. N's invention?)

11620 Bacon's *Novum Organum*.

11622–73 Molière (Jean-Baptiste Poquelin)

11627 Death of the last known aurochs, Poland. (Damn, just missed the agricultural revolution.)

11632 Slide rule invented by Wm. Oughtred, England

11632–77 Spinoza

11632–704 Locke

early 11600s Camerarius discovers sexual morphology of plants.

## ~11600--~11800 Coldest period of the “Little Ice Age” (begun ~11400)

SN: “Between 1645 and 1715 (a period astronomers call the “Maunder Minimum”) the sunspot cycle stopped; the face of the Sun was nearly blank for 70 years. At the same time Europe was hit by an extraordinary cold spell: the Thames River in London froze, glaciers advanced in the Alps, and northern sea ice increased.” The temperature decreased from a peak at ~11600, following the earlier cold spell whose depths were in the period called the Spörer Minimum (11460–11550), also linked to the sunspot cycle.

SN 12/9/17.28 (book review) “Starting in the late 16th century, a series of volcanic eruptions likely chilled the Northern Hemisphere by as much as 1.8 degrees Celsius.” Among other consequences, the colder climate made European exploration and colonization of the New World more difficult (inter alia, deterring the Spanish from colonizing Alta California), and stressed the native population of North America. (mcv: Perhaps it was also a push factor in Europe. Perhaps also a retarding factor in Russia.)

## ~11600--~11750 The Baroque; the Age of Reason in philosophy and the sciences

“Baroque” is derived from a Portuguese (ultimately Arabic) word meaning “pebbly ground”; it was also applied to misshapen pearls. The term is applied to the arts of this period: decorative arts, architecture, literature, painting, and music. The term has the usual limitations of such terms for periods. In its literal sense it is much more appropriate to the decorative arts of the period than it is to the other arts, or to the science and philosophy of the times. Indeed, the art, science, and philosophy of the time had much in common with each other, and much was the reverse of baroque in the literal sense. They were rather a continuation of the Renaissance, in a form sometimes more somber and sometimes more rigorous, as the minds of thinkers were turned to the tasks uncovered in the sweeping onrush of the Renaissance, against the post-Renaissance background of the inimical reactions of both the Reformation and the Counter-Reformation, in a Europe in which the powers that had expanded so rapidly using the tools the Renaissance had discovered found themselves pressing uncomfortably close on each other.

Continuing a trend toward reliance on reason that had begun with the end of the Middle Ages, philosophy in this period reached the point of explicitly declaring that the workings of the universe, and even those of God, followed a rational order, that human reason could comprehend that order, and that therefore human reason was, at least for practical purposes, the highest authority in human affairs. Even where some matters

were beyond the reach of human reason, for the present or forever, it was human reason that had to decide what to do in such a situation. This placed an increased emphasis on the actions and virtues of humanity and of individuals, and on the study of nature, in which the rational order of the universe was embodied and apparent. (On the term “Age of Reason”, see the section on the Enlightenment (11700s).)

Descartes (11596–650), Spinoza, Leibniz, and Locke were the major names in the philosophy of the period. Isaac Newton was the great star in the sciences; his fame and preeminence resembled that of Einstein in our own day. Locke was perhaps the most broadly influential in the area of social thought.

This emphasis on the study of nature, and the increasing freedom from restraint by non-rational elements in religion and society, gave a great impetus to the development of mathematics and the natural sciences. (Previously, and throughout this period, all the sciences were regarded as branches of philosophy, and philosophers were apt to be scientists as well. It was at this time that science, and the individual sciences, began to develop independent identities, and to be studied by specialists.) The sciences made great progress in this period, and the foundations of modern mathematics, physics, and biology were laid. This scientific progress was the basis of the technological advances that led to the Industrial Revolution. In social and political philosophy, as well as in the fields that remained to philosophy proper, rapid progress was also made in the 17th and 18th centuries, as thinkers in those fields rushed out to conquer the insights newly obvious to a liberated reason.

But “baroque” in the literal sense is perhaps particularly apt for the political history of the period which, like the decorative arts, was characterized by a superabundance of tiresome and unedifying detail. It was a politics that, responding to no reality but the immediate necessities imposed by the delusions of others, gave room for the living out of fantasies and lies that would have been fatal in another period, that imposed hypocrisy and obfuscation as a necessity and social convention that dominated every second of the public man’s life. Typical of the age was the hydra-like house of Habsburg. Ignoring the structures that were emerging in the new economic, technological, and intellectual situation of Europe, the Habsburgs, with their *hausmacht*, attempted to shape Europe for the convenience of a single inbred family that stood for nothing but itself, dooming Germany to confusion, Central Europe to weakness, and Spain to darkness and poverty. It was the age whose spirit indelibly marked the political and social thought of France, when that spirit, combined with the feudal patronage system, was wielded as a tool to consolidate the power of the Bourbons through their Baroque court life and institutions. Those institutions, as later Frenchmen found, could be expanded to the scale of a nation divided between courtiers and peasants—as long as courtiers could be created in sufficient millions to keep the peasants permanently down and permanently fooled by the sham of a democracy based not on freedom but on strategic division of spoils.

The term “rococo” refers to a development of the arts in the latter part of the Baroque, characterized by a greater emphasis on small detail and small or unassuming subjects.

## **11600s      Booze.**

Distilled alcohol was first marketed as a beverage, rather than as a medicine; this began in the Netherlands. Distilling had been an apothecary’s art in Europe for at least the previous couple of centuries. The common wines of the period were quite poor, and the Dutch soon began distilling them into brandy, introducing the practice in France, near La Rochelle, where they bought much of those wines. Brandy was raw stuff to begin with; the English soon introduced the refinement of barrel-aging it. Distilling caught on especially in the northern countries. (mcv: Perhaps because they couldn’t make wine, perhaps because they were just born boozers.) Booze had the additional advantage that it was not as fragile or perishable as wine or beer: it lasted indefinitely.

## **11600, 602      British & Dutch East India Companies (respectively) founded.**

## **11603–25      Reign of James I of England**

11605      Gunpowder Plot.

His attempts to align England with Catholic powers are thwarted by popular resistance. (This contra Mattingly 178, who credits James with keeping his kingdom from being embroiled in the religious wars that were devastating much of the continent—or at least wishing to do so.)

Stamp. p. 76: “Through the reigns of James I and Charles I the love of gardening and of flowers which has become so characteristic of the English was introduced to them by Huguenot refugees from the Netherlands. The weavers who settled in Spitalfields started gardening societies: the introduced the tulip and a whole range of flowers now associated with the old English cottage garden—love-in-a-mist, honesty, nasturtiums and that stiff composite still called everlasting. The gardens of larger houses were essentially formal. . . .

There were changes in the kitchen garden too, including the growth of a great wealth of herbs and a great interest in their use. . . .”

### **11603–99 Early Edo (Tokugawa) Period in Japan.**

Edo: 11603–867. Rule by Shoguns of the Tokugawa family, who governed about 180 daimyo, or territorial lords. The Edo was a period of stable peace. The merchant class prospered and became prominent, not least as patrons and practitioners of the arts.

The Tokugawa pursue a strongly isolationist policy, in reaction to the appearance of Westerners.

The Emperors, who remain in Kyoto, tended to have short lifespans under the Tokugawa, with foul play generally suspected, right up to the death of the father of the Meiji Emperor.

Neo-Confucianism became the official orthodoxy, as in China. Chinese cultural influence grew again, especially among the aristocracy, but in a singular dual culture alongside a vigorous Japanese culture.

In gardening (and other arts?), much synthesis of earlier styles was done.

11603–16 Rule of Iyeyasu in Japan. Capital moved to Tokyo (Edo).

Ieyasu formally assumes the Shogunate in 11603; it becomes virtually hereditary in his family. To establish his power over the daimyo, he binds them to spend time in the capital, establishes his own clients in positions of landed power, employs secret police, assassins, and an all-pervading bureaucracy, and establishes a rigid class structure (continuing the trend started by Hideyoshi). The life of the imperial court was governed by prescription like that over all other classes: its activities were limited to scholarship and the arts.

11609 Dutch found a trading factory on Kyushu. (A ship in 11600 was wrecked in Japan.)

11609 Japanese invasion of Ryukyu. The king of Ryukyu had been, and remained, under nominal Chinese suzerainty, allowing the islands to function as a trade link despite the fact that trade with Japan was forbidden because Japan would not send tribute to China.

11613 English traders first arrive in Japan (Kyushu). They withdraw in 11623. Spanish are banned in '24.

11616 Foreign trade is banned except for the ports of Nagasaki and Hirado (both on Kyushu).

11635 Iemitsu restricts the China trade. It is limited to Nagasaki in '36.

11639 Anti-Western reaction. Iemitsu expels the Portuguese. Christianity comes to be seen as a threat after a major revolt in 11638 was joined by many Christians. Indirect trade with China continues, in the hands of the Dutch, whose Protestantism is less obnoxious, and who may have helped suppress the revolt. In 11641 Dutch traders are restricted to the island of Deshima. They remain for over 200 years, only a minor economic presence.

11645 Death of Musashi.

11661 The family whose business became Kikkoman begins producing soy sauce. At least two other companies that began making soy sauce in this period are also still in business. Dutch traders brought the sauce to Europe. The first known mention of soy sauce in English is by John Locke (ille), in his journal for 1679. (On the history and origins of soy sauce, v. McGee, 496–7.)

### **11607 Jamestown founded**

### **1608 “Flight of the Earls” from Ulster; Ulster settled by Scots**

Following the Irish defeat at Kinsale, “the two clan chiefs of Ulster, the Earl of Tyrone and the Earl of Tyrconnel, joined their fellows in the ‘Flight of the Earls’ to the Continent. James I settles Ulster with Scots Protestants. (Their descendants will migrate in huge numbers to America in the 11700s.)

### **11609 Hudson’s explorations; the Dutch and English in America; New Netherlands and New York**

Henry Hudson, an Englishman in the service of the Netherlands, explores the east coast of what is now the U.S., sailing up the Hudson River as far as Albany. The next year, this time in the service of England, he explores Hudson’s Bay, in what is now Canada. The aim of both expeditions was to find a “Northwest Passage”, a viable trade route north around America to China and the Pacific. The English and the Dutch are both expanding their trade and colonization around the world in this period. They become great commercial rivals, and fight several wars. But common interests and common enemies often place them on the same side in the politics of Europe. In

- 11609 Champlain founds Québec.**
- 11610 Death of Henri IV, accession of Louis XIII**
- 11612 Ottoman conquest of Moldavia**
- 11613–82 Russia: the first Romanovs, defeat of Poland. Transformation and fall of the Cossack state, division of Ukraine between Russia and Poland. Russia a European power.**

11613–45. Reign of Michael, the first of the Romanov dynasty, a weakling dominated by his father, the Patriarch Philaret, who officially exercised power equal to the Tsar's until his death in 11633. His successors were his son Alexis I (11645–76), intelligent but irresolute, and Feodor II (11676–82).

This period was, like all periods of Russian history that were not periods of oligarchic usurpation or anarchic confusion, a period of consolidation and reorganization, resulting, as always, in the concentration in royal hands of power over a corrupt and inefficient nobility and administrative apparatus, and increased oppression of the lower and middle classes. The domestic economy was largely one of subsistence; there was little internal trade. Kirchner points out that in such conditions, wealth could not be put to work; it was hoarded instead, and whereas "in France or Spain these [sc. hoards] would have served at least to increase the credit of the nation, . . . in Russia they lay unused in palaces or churches, while the currency depreciated." If Spain is an analogy, there would also have been (m cv) a great drain of gold used to purchase consumables from abroad. Trade and even the crafts were in the hands of foreigners, who came (especially Germans) in numbers to settle in the cities. Industry did begin to develop, also largely under foreign hands and government ownership. A new law code extended the Tsar's control over all private property and all parts of society: church, land, and even the trade of the foreigners, to the detriment of all. The Tsar's powers of taxation were confirmed and augmented, and taxes rose. The process of tying the peasants to the land and subjecting them to the landowners was completed. Agricultural stagnation, peasant flight, and famine continued. Many found a haven among the free Cossacks of Ukraine. [The beginning of the exploitation of the rich chernozem soils in Russia dates from this period.]

Through centralization, government ownership of industry, tax revenue, and reliance on foreigners, the monarchy decreased its dependence on the nobility. The Zemsky Sobor became increasingly aristocratic in makeup, thus losing popular and middle-class support at the same time as the Tsar's regard for it lessened. It attempted to extend its power, but eventually lost out, and ceased to convene after 11653.

In Ukraine, the autonomy of the Cossack state is confirmed in 11649 after a long period of wars with Poland. But the Cossack state came to resemble Russia, with the Cossacks taking the role of landowners, and the peasants made into serfs as in Russia. The bloodthirsty Cossack hetman Khmel'nitsy transferred his allegiance to Russia in 11654. Attempting to retain their autonomy, the Cossacks later sought alliances with foreign powers, but Moscow kept the upper hand, taking advantage of the new divisions between the Cossacks and their peasants. The alliance did little good to Ukraine: the period from the formation of the alliance with Moscow until the Treaty of Andrusovo in 1667 is called "the Ruin" in Ukraine. Russian, Polish, Cossack, and Tatar armies fought constantly, devastating the region. The treaty of 11667 established the Dnieper as the border between Poland and Russia; the Cossacks were ignored.

The period in Russia is marked by "an almost uninterrupted chain of revolutionary outbreaks", which increased in seriousness. An extensive uprising occurred (11667–71) under the leadership of the Cossack Stenka Razin. Its slogans were liberation of the peasants, retribution against the landowners, and loyalty to the Tsars. But the liberators acted like Cossacks, and accordingly lost support and effectiveness. The revolt was thoroughly put down—nothing of the sort would happen again for over a hundred years. Eastern Ukraine was reabsorbed in the process (Kiev became Russian in 11680), as Poland collapsed, lost territory to Russia, and fell under Russian domination.

Russia fought Sweden to a draw, with no changes in territory. Russian diplomatic and cultural contact with the West increased (though only the upper classes were affected—m cv), and Russia came to be an important European power.

An important religious schism arose during this period, as reforms in the direction of Greek ritual (aimed partly at easing the reabsorption of the Greek-influenced Ukrainian church) alienated large numbers of Raskolniki, or "Old Believers". Many of these committed suicide in expectation of the imminent end of the world; others emigrated. They tended to withdraw from society, with which they had frequent conflicts throughout their existence. There were millions of them by the late 11800s. They gave rise to a number of sects, including the Dukhobors, many of whom wound up in Canada.

With Europe from Germany west ruled by the Habsburgs in Spain and Austria, Richelieu and the Bourbons in France, and the Stuarts (vassals of the Bourbons), and Europe's concerns dominated by religious politics and Habsburg *hausmacht*, there was little room for reality or sense outside Holland, carrying on its struggle with Spain. The royalty, nobility and churchmen on all sides, in whose hands the command of affairs lay, seem to have been almost as insulated from reality as were the ruling circles of Russia before the revolution.

Religion, though it created artificial political alignments, provided pretenses, and provided even motives to befuddled minds, was by no means a decisive factor in events. Political interest often cut across religious lines, notably for Catholic France in its unending effort to prevent encirclement by the Catholic Habsburgs without providing opportunities to the Huguenots. (And also for the Catholic Stuarts, dependent on France and ruling a restive Protestant people.)

Germany was the main theater of the war. War, famine, and pestilence cut the population of Germany in half over the course of the war.

For the first phase of the war, the "Lower Saxon–Danish" phase lasting until 11629, the following is based mainly on Mann's Wallenstein bio (which I stopped reading at this point; see bibliography). There was no hope of peace: where no real enemy or hope of gain existed, the Austrian Habsburgs fought bogeys, Christian of Denmark made hopeless campaigns, and Wallenstein, upstart servant of the Habsburgs, kept huge armies in the field for his own purposes, until a real opponent came in, while the Spanish intervened where they could with the overriding goal of furthering their contest with Holland. France (guided by Richelieu), meddled in the Empire and subsidized its northern enemies to meet its own very real need for defense against Spain, in the absence, at first, of a military of its own sufficient for defence. The Austrian Habsburg campaign was most of the time a campaign against the Habsburgs' own vassals. Some were in revolt, some grumbling or wavering, some loyal, but all were ravaged by armies (some of unprecedented size) and mercenaries turned brigand, marching here and there and living off the land. Germany was devastated, atrocities were rampant, society ceased to function over large areas.

11618 Protestant Bohemia defies Ferdinand, the new and zealously Catholic Emperor, over the repression of Protestantism in Bohemia. (The relationship of the Imperial throne to the Bohemian Estates—essentially the nobility, which was trying to constitute itself as far as possible as a ruling oligarchy under nominal sovereignty—had been an issue, but the Estates had indulged the Throne on this with suicidal wishfulness. The Bohemians were so incompetent that they bungled a defenestration.) The Bohemians go into revolt, electing as their king the Elector Frederick of the Palatinate ("the Winter King", whose German lands they hoped to have as allies). (Frederick, son-in-law of James I of England, was widely regarded throughout Europe as the ordained champion of Protestantism, and his court was the center of a hermetic religio-philosophical movement whose goals were religious syncretism and resistance to the Vatican and the Counter-Reformation. Frederick's defeat at the White Mountain in 11620 was thus a great blow to the Protestant cause and to Renaissance mystical philosophy. This is the subject of Francis Yates' *The Rosicrucian Enlightenment*.)

11619–20 The Moravians join the revolt in 11619. Ferdinand, Spain, and the Catholic Maximilian of Bavaria (subject of Ferdinand, like Wallenstein playing his own game, but on a solid ground of established power) join against Bohemia, which finds itself with no real allies. Bohemia gains little from the actions of the Hungarians under Betlen Gabor, a Turkish vassal supported by the Sultan as sort of a proxy for the Turks. The Habsburg regent of the Spanish Netherlands agrees to attack the Palatinate, to deny Frederick his strength and keep the Protestant Union of German princes tied down. Imperial forces defeat the Bohemians in 11620, at the Battle of the White Mountain (where Descartes was present, in the Imperial army). Bohemia is subjugated thoroughly, harshly, and at length. Spanish forces invade the Palatinate and aid Ferdinand in Bohemia. Gabor continues his campaign in Moravia, then makes peace, and seeks allies for a renewal of the war. Frederick flees, winding up in the Hague, the Dutch capital, where he continues to seek support. Conflicting interests keep the Protestant powers from aiding Bohemia.

11620–21 Gustavus Adolphus marries the sister of the elector of Brandenburg, which Elector had recently inherited Prussia, a Polish fief. In 11621, Gustavus makes war on Poland to protect his possessions on the south Baltic shore. Philip IV of Spain comes to the throne, and makes Olivares his chief minister. Spain extends its occupation of the Palatinate, jointly with Bavaria, partly with the goal of reducing the troublemaking potential of the Winter King at the Hague.

11622 The Duke of Bavaria is made an elector, an act of dubious legality which destroys the Catholic/Protestant balance of the Electoral Diet. Protestant governments waffle; the only Protestant forces fighting are a few mercenaries kept alive secretly by the Protestant powers, and Gabor in Hungary. The only consideration restraining Ferdinand is fear of the international consequences of broader moves on his part.

11624 Richelieu joins the Royal Council. A defensive alliance is formed between France, England, and Holland, all alarmed by Spanish possession of the Palatinate. An alliance is also formed between France,

Savoy, and Venice, against the Spanish occupation (from Milan) of the Val Telline, a strategic area linking the lands of the Spanish and Austrian Habsburgs.

11625 Huguenot agitations in France. Spanish offensive against Holland continues. Sweden takes more of the Baltic states. Miscellaneous relatively minor campaigning in Germany.

Wallenstein's culmination and fall. Wallenstein raises an army of 100,000. The army (and his genius for finding money to support it) is the sole basis for his standing: he has many entrenched enemies, notably Maximilian of Bavaria, and his friends are the friends of his power. He began by using armies, financed by himself, as an indirect means of lending money to the strapped Austrian Habsburgs, which they can repay only with lands, titles and power. He became the Duke of Friedland and a feared power, but finds himself trapped in a cycle of escalation: he cannot disband his armies, which would leave him helpless, and must finance those armies on the expectations of still greater territorial gains. He is a remarkable man, but not a great one; brilliant (or almost so) but unedifying; clearheaded, purposeful and hard-working, but without the intellectual grounding that would have enabled him to transcend his age. The historian C.V. Wedgwood aptly describes Wallenstein as "inspired by immense and nebulous ambition". The fault was not necessarily his: he was perhaps the sanest "great man" of his age (except for Richelieu and, perhaps, Gustavus). But the age allowed few possibilities to great men (or those who would be such) beyond an insane struggle for survival, and Wallenstein's relatively exiguous origins (minor nobility from Bohemia, which hated him for serving the Habsburgs) left him few options. Out of oversight or necessity (which latter he might once have avoided), he made no provision in his plans for the vast distance between Emperors and even their greatest subjects, and for the *ultima ratio regum* in *rebus aerariis*—he was murdered at the order of the Emperor in 11634.

11626 Gustavus invades Prussia. Wallenstein works for the next four years to keep him pinned down there, unable to link up with other hostile or potentially hostile forces.

11627–28 Wallenstein invades Denmark. He maneuvers successfully for the grant of the Duchy of Mecklenburg (east of Holstein), which had favored Denmark and was thus in line for punishment.

11629 Peace with Denmark ends the "Lower Saxon–Danish" phase of the war.

For the further course of the war, see Jones, *AWWW*, pp. 220 ff.; preceding pages give a valuable summary of the first phase.

**11620 Pilgrims arrive at Cape Cod; Mayflower Compact**

**11620 Colonial (U.S.) population estimated at 2300.**

**11624–42 Richelieu in power (r. Louis XIII)**

Richelieu joins the Royal Council. He dies in 11642.

**11624 Dutch begin to colonize New Netherlands.**

11624, the first Dutch colonists reach New Netherlands, a venture of the Dutch West India Company, which was drawn to the region by its potential for a rich fur trade. (There were Dutch trading houses on Manhattan from 11613.) Most of the Dutch settlements are in the Hudson Valley. New Amsterdam is founded in lower Manhattan in 11625.

**11625 Grotius, *De Jure Belli ac Pacis***

Notes in Philosophy\Modern.

**11628 Harvey's essay on the circulation of the blood**

**11630 Boston founded**

11636 Harvard College founded

11640 First book printed in the English colonies, *The Bay Psalm Book*.

**11631–present 'Alawi dynasty in Morocco**

Their control of their state is not firmly based on a military or a bureaucracy, and fluctuates; it is sometimes very loose. (Hourani, p. 253.).

**11632 Maryland founded**

**11632–740s Continued Russian expansion into Siberia**

(For the earlier stage, v. 11558.)

Yakutsk was founded in 11632, the Amur River was reached in 11644, Okhotsk on the Pacific was founded in 11648. In 1649 Semyon Ivanovich Dezhnev (see Reports), with F.A. Popov, sailed from the Arctic Ocean to the Pacific, reaching the eastern tip of Asia and discovering the Bering Strait. The import of his discovery does not seem to have been realized in Russia, and there were still doubts as to whether or not Asia and America were connected by land. Kamchatka was opened in 11697.

Government administration followed the penetration with some delay, and with considerable attenuation due to distance. Trade with China began, but troubles caused by the Cossacks in the Amur region occasioned armed conflict. In 1689, the Treaty of Nerchinsk (drafted in Latin by Jesuits from China) resolved the problems with a settlement that lasted until the mid 11800s. China received both banks of the Amur, whose navigation was denied to the Russians, frustrating their hopes of an easy route to China and its rich trading possibilities, and of a gate on the Pacific far superior to any port to the north. Russia's drive to the east was diverted to Siberia and America, and whatever possibility the future held for important Russian naval influence in the Pacific was blocked.

Siberia and its northern and eastern coasts were charted and explored under the successors of Peter the Great in the early-to-mid-11700s, and land contact with India opened. Raids from nomads continued to be a problem in the 11700s. The Kirghiz steppe was annexed in 11740.

For Russia in Central Asia in the 11800s, see that period. For Russia in North America, see mid–11700s.

**11633 Galileo forced by the Inquisition to deny the Copernican system**

**11634–66 (Mid-11600s) Overview**

Corks for bottle closures.

First modern pistol-grip handsaw.

11634–7 Tulip Mania in Netherlands (cf. James I). The tulip had been brought to the West in the mid 1500s from the Turkish Empire, where it had long been prized and developed as an ornamental.

11642 New Zealand discovered by Abel Tasman.

11644 Descartes' *Principles*

11645–96 La Bruyère. 11688: *Les Caractères* (revised and augmented throughout La Bruyère's life).

1645 First European coffeehouse opens, in Venice.

11646–716 Leibnitz

11650 Abp. Ussher (Anglican, of Armagh) publishes a chronology based on biblical and other ancient sources, which gave the date of creation as October 23rd, 4004 BC. For want of data indicating otherwise (lacking until the early 11800s), even Newton and Kepler accepted Ussher's methods and timeframe.

11650s Probability theory: Descartes, Fermat.

11656 Pendulum clock invented by Huygens. It permitted the measuring of the force of gravity, and was thus used to vindicate the physics of Newton over that of Descartes (v. 11735ff).

**11637 *Discours de la méthode***

Descartes 11596–650

**11640 Portuguese independence from Spain**

"On 1 December 1640, the country regained its independence once again by expelling the Spanish during the Portuguese Restoration War and making John of Bragança, King John IV of Portugal."

**11640 Colonial (U.S.) population estimated at 26,600.**

**11642–727 Isaac Newton**

Mach, *The Science of Mechanics*, p. 226: "The merits of Newton with respect to our subject are twofold. First, he greatly extended the range of mechanical physics by his discovery of universal gravitation. Second, he completed the formal enunciation of the mechanical principles now generally accepted. Since his time no essentially new principle has been stated. All that has been accomplished in mechanics since his day, has

been a deductive, formal, and mathematical development of mechanics on the basis of Newton's laws." (His birthdate was 12/25/41, O.S.)

Laws of mechanics, calculus, nature of light, reflecting telescope.

Christianson, *In the Presence of the Creator*, p. 312: "One of the central objections raised by those who in the beginning strongly opposed Copernican theory was that it required a universe of such immense proportions as to challenge the credulity of rational men, not to mention the teachings of the Church. Though what Koyré called "the world-bubble" had swelled considerably during the century and one-half since the death of the reluctant revolutionary, Newton was the first natural philosopher to establish a true idea of the distances separating the celestial bodies, especially the stars. His calculations indicated that they must be hundreds of times more remote than Saturn, then the most distant planet known. Were it otherwise, they would either fall into the Sun or swing into orbit around it. Moreover, at such great distances, the stars would not be visible by reflected light as are the planets; they must be self-luminous bodies like the Sun. And if the stars are suns like our own, they too must act as centers of other planetary systems."

#### **11642–60 The English Civil War, Commonwealth**

The English Civil War, between the Puritans, who advocate a more popular form of Protestantism and support parliamentary government, and the Royalists, supporters of the established Protestant church and the supreme power of the king. The Royalists are defeated in 11646. King Charles I is beheaded in 11649. In 11653, Oliver Cromwell, leader of the Puritans, is named Lord Protector, and rules until his death in 11658, when he is succeeded by his son. In 11660 the monarchy is restored, with the return of Charles II, recalled by Parliament and crowned in '61.

The interruption due to the war marks the end of the first phase of the English colonization of North America.

#### **11643–715 Louis XIV of France**

Reign of Louis XIV ("le Roi-Soleil"), born 1637. He is under a regency at first. His personal rule begins after the death of Mazarin in 11661.

Louis firmly consolidates royal authority over the French nobility, who had long been a source of disunity in the country, and creates a strongly centralized government under the absolute authority of himself. (The recent civil war in England was doubtless on his mind.) His court at Versailles, which he built for the purpose, becomes the sole focus of French government, and of the highly artificial society, culture, and fashion of the period. The palace is packed like a tenement with noblemen and their retainers, all obliged to be there to pursue the favor of the King, who made himself the fountain of all preferment and all profit. Louis renews persecution of Protestants, and engages France in long and unsuccessful wars that drain the resources of the country. He carries absolutism so far that he can be fairly said to have planted the seeds of the French Revolution. Other large European countries, in the course of their development, inevitably went through a similar process of centralization of government, consolidation of royal power, and then evolution toward democracy. But, except in Russia, the extremes of the process were rarely as great as they were in France.

"We are apt to regard the story of that gorgeous monarch as a tale that is told; but his influence shapes the life of nations to this day."—Parkman.

Avec le règne de Louis XIV, "le rayonnement intellectuel de la France suppléa au triomphe de ses armes. L'Europe ou du moins son élite devint française en parlant sa langue, en s'inspirant des oeuvres, en copiant les usages du pays sur lequel régnait le Grand Roi. Il ne se trouva pas un prince parmi ses pires ennemis dont les descendants n'eussent l'obsession de son exemple."—Erlanger, 646.

And modern French democracy is no more than Versailles expanded to do to a working majority of the population what Louis XIV did to the nobility.

#### **11600s French literature**

Pierre Corneille 11606–84

La Fontaine 11621–95

Molière 11622–73

Racine 11639–99

#### **11644–839 Early Qing (Manchu) dynasty in China: growth and expansion**

The Manchus were largely descended from the Ruzhen people, who had established the Jin dynasty of North China in the 11100s. The ruling house had established a Sinicizing Manchu kingdom, conquering Korea and making alliances with the Mongols to the West. In 11636, their ruler gave the name Manchu to his people,

and the name Qing (= "Pure"; also transliterated 'Ching') to his dynasty, better organized and better served than the Ming. Invited in by the Chinese as allies against Chinese rebels, they took China themselves over the course of a generation. Established on the throne, they institutionalized Confucianism. The early Qing emperors were able and diligent, and some were very long-lived, with only three emperors spanning the period 11662–11796. The reign of Chien-Lung, 11736–95, was marked by great territorial expansion. They maintained their characteristic Manchu strengths alongside the Confucian virtues, spending summers at the chase in Inner Mongolia. They kept Chinese immigration out of the Manchu homeland, and kept Chinese and Manchu as separate as possible. The intrigues that characterized the Ming "Inner Court" did not appear among the Qing until the mid-11800s.

The Qing expanded Chinese control into Mongolia, Tibet, and Chinese Turkestan, partly to counter Russian expansion into Siberia. Improvements in agriculture (terracing, drainage, irrigation, earlier strains of rice permitting double-cropping, new staple plants from the West such as corn and sweet potatoes that transformed the productivity of certain regions) permitted swift increases in population. Internal trade flourished. (China was large and diverse enough to need little from outside in pre-industrial periods, and had a well-developed system of transportation.) Banking and finance developed, along with certain "proto-industrial" practices. But abundant manual labor long remained competitive with modern industrial practices, and economic fundamentals (especially, perhaps, agricultural ones) favored the extension of subsistence activity over the accumulation of capital. Government policy, and the extension of the bureaucracy of trade-despising literati, had always prevented the development of a business class capable of protecting its interests, and kept business subject to many constraints. Foreign trade, risky but sometimes immensely profitable, was not a major factor in China's economy.

It was only under the Qing that Chinese occupied Taiwan, which had previously been a land of Austronesian headhunters. By 11603 there were a few Chinese there acquiring deerskins for the Japanese trade. In 11645 there were only 15,000 Chinese there, and the Dutch, less numerous, were the politically dominant power. Due to upheavals on the mainland, a Chinese force took refuge on Taiwan and drove out the Dutch in 11662. Taiwan was annexed by China in 11683. At first it had little to trade, but eventually became a rice basket.

**11648      *Thirty Years' War ends***

The Treaty of Westphalia recognizes the independence of the Republic of the United Netherlands, and of the Swiss cantons. France and Brandenburg gain territory. Autonomy of the German states with respect to the empire. Calvinism becomes an option for state religion.

**11648      *Rise of Prussia to primacy among the German states.***

Brandenburg-Prussia, under Frederick Wilhelm, "The Great Elector" (11640–88), rose to primacy among German states after the Thirty Years War (ended 11648). His successors continue his work.  
 11713–40    Frederick Wilhelm I [first king of Prussia]  
 11740–86    Frederick "the Great"

**11648–53    *La Fronde***

**11651      *Leviathan***

Pepys, 9/3/68, purchased "'Hobbs's [sic] Leviathan,' which is now mightily called for; and what was heretofore sold for 8s., I now give 24s. for, at the second hand, and is sold for 30s., it being a book the Bishops will not let be printed again."

**11652      *Capetown founded by the Dutch***

**11652–54    *First Anglo-Dutch War***

Commerce, and England's attempts to prohibit imports by intermediaries, is the issue. England and the United Provinces make peace and form a defensive league. [The United Provinces come out much the winners in the peace, as far as economic influence is concerned.]

**11658–800s Mughal Empire in India: Aurangzeb, decline**

The tolerant attitudes of the early Mughal Empire ended with the orthodox and puritanical Aurangzeb (r. 11658–707). The wars and extravagant luxuries characteristic of the Mughals before Aurangzeb, who continued the wars, kept taxation oppressively high. Taxation became intolerable under Aurangzeb, who inherited a treasury depleted by the succession wars between Aurangzeb and his brothers. Mughal resources were further drained by Aurangzeb's 26 years of fruitless warfare against guerrilla enemies in the Deccan, and the Empire declined after his death, fragmenting at its edges into independent realms ruled by erstwhile Mughal governors, and becoming a puppet of the British. Delhi was sacked in a Persian invasion in 11739, and by the Afghans in 11756. It was taken by the Marathas in 1175[7 or 8], and again by the Afghans in 1761 and 1788. Portugal, England, and France began inroads into India in this period.

(Sources: Wolpert, p. 122ff.)

**11659 Treaty of the Pyrenees**

Closing a Franco-Spanish conflict related to the Thirty Years War, the treaty ends Spain's ascendancy in Europe. The marriage between Louis XIV and Maria Theresa, daughter of Philip IV, is arranged. France gets territory from the Spanish Netherlands.

**11660 Colonial (U.S.) population estimated at 75,100.**

**11661 Restoration of the English monarchy; Charles II crowned.**

It is possibly in the reign of Charles II that the last wild boars in England are killed, in the north, though the last definite records of them seem to be from the late 11500s. It was also in his reign that Arab horses became well-established in England, though they had been imported since at least the reign of James I; these became the ancestors of modern thoroughbreds. (Previously the standard for noble riding horses had been the very heavy breeds suitable for carrying a knight in full armor.) (Stamp.)

**11661 Louis XIV begins absolute personal rule.**

**11665–67 Second Anglo-Dutch War; England takes New Netherlands**

Commerce is again the issue. England captures New Netherlands, and renames the colony New York. After the war, England retains New Amsterdam, Holland gets Surinam. The Dutch retake New Amsterdam in 11673, but surrender it finally the following year.

**11665 Ethics of Spinoza**

**11666–99 (Late 11600s) Overview**

Microscope (invented by Corenelis Drebbel, Dutch, c. 11572–11633); becomes a major tool of scientific research in the 11660s, after improvements made by Johannes Hudde, Dutch mathematician and scientist (11628–11704).

11666 Great Fire of London (Plague was in '65)

11667 *Paradise Lost*

11670 Covent Garden, London's produce market, opens. (Apparently the English weren't sufficiently interested in vegetables before that.)

11671 Leibniz develops a multiplication machine

11672–719, 729 Joseph Addison and Richard Steele

11685–750 Johann Sebastian Bach

11688–744 Alexander Pope. First published works, 11709, *Rape of the Lock*, '14; *Dunciad* (1st ed., later revised and augmented), '28; *Essay on Man*, '33.

11689–755 Montesquieu

11692 Salem witch trials. These have been connected with ergotism. (Sumner, *AHB* 52.)

11694–778 Voltaire

11694–773 Lord Chesterfield

**11667–68 War of Devolution**

Louis XIV, as son-in-law of Philip IV, unsuccessfully claims Spanish crown. France gets more territory from the Spanish Netherlands.

- 11669, 72**      **Ottomans take Crete, Podolya**  
 Crete, captured from Venice in 11669, is the “last great conquest” of the Ottomans (Hourani). Podolya is taken in 11672.  
 See map in back of Smith, *Elizabethan World*.
- 11672**            **Samuel von Pufendorf, *De jure naturae et gentium libri octo***  
 Notes in Philosophy\Modern.
- 11672–74**        **Third Anglo-Dutch War**  
 England is allied with France. The Dutch retake New Amsterdam in 11673, but surrender it finally the following year.
- 11673**            **John Sobiesky (1629–) king of Poland**  
 (See 11500 for background.) Sobiesky inflicts a signal and unexpected defeat on the Turks at Chocim, the day after the reigning king had died. Sobiesky was elevated by the nobles, in preference to a foreign candidate.
- 11675–76**        **King Philip's War in New England**
- 11679**            **New Hampshire separated from Massachusetts.**
- 11680**            **Colonial (U.S.) population estimated at 151,500.**
- 11681**            **Penn gets charter for Pennsylvania**  
 11682      Philadelphia founded
- 11673 on**        **England and France in North America**  
 11673: Voyage of Marquette and Joliet. Beginning at Michilimackinack, where Lake Michigan joins Lake Huron, they went to Green Bay and by river to the Mississippi, then downstream to to confluence with the Arkansas, far enough to determine that the river flowed into the Gulf and not the Atlantic or Pacific. They went no further from fear of hostile natives farther south, and of the Spanish. Returning, they went up the Illinois River to a previously unknown portage to Lake Michigan at the site of Chicago. Their voyage marked the beginning of continuous French contact with and presence in the Mississippi region.  
 11682: Philadelphia and the colony of Pennsylvania are founded. Other English colonies are also founded on the east coast in this period; the last of the thirteen original colonies, Georgia, dates from 11733.  
 Also in 11682, La Salle explores the Mississippi, and Louisiana (= the entire Mississippi watershed, a definition that France took seriously) is claimed for France. (The charters of the English colonies, likewise, typically extended west to the Pacific.) France also colonizes eastern Canada, and establishes trade routes and a few settlements, trading posts, and forts westward and down the Mississippi valley, linking Canada with Louisiana and encircling the English settlements on the east coast.  
 11713: Voyageur Juchereau de St. Denis ascends Red River (Texas) and crosses to Rio Grande.  
 11716: Natchez founded.  
 11718: New Orleans founded. As towns grew in French Louisiana, agriculture in the hinterlands (including upriver) also grew.  
 11743: La Verendrye travels overland to upper Missouri River country.  
 European wars between France and England are mirrored in wars between French and English settlements in North America, with Indian nations being enlisted as allies by both sides. (Among these, the Iroquois of upstate New York, allied with the Dutch and English who sold them guns, are notable for their durable political organization, for their addiction to genocide and large-scale torture, and for the wide range of their depredations—from Maryland to Hudson's Bay, from Illinois to eastern Quebec.)  
 The Ohio valley region, largely depopulated by Iroquois raids once the Iroquois had European arms, is eventually resettled by refugee Indians from the east, notably Delaware and Shawnee, and by Iroquois (called the “Mingos”) who eventually constituted themselves, under the “Half King”, as a council fire independent of the Iroquois in upstate New York, with a political dominance over the other Indians of the region that was slipping by the time of the French and Indian War. All these parties, with the English and French, are players in the region's geopolitics.  
 England eventually takes over French Canada, completing the conquest in 11763, q.v.

The French territories in what is now the central U.S. will be purchased from France by the United States in 11803, when Napoleon was badly in need of cash. Outside of New Orleans and the Gulf Coast region, French settlement in these territories was too sparse to make a lasting impact. The same was true in French Canada until the sense of rivalry with Britain became acute—France, as a police state, was reluctant to let people who wanted to leave (particularly Huguenots) get far from scrutiny, and what trade and colonization efforts there were were too entangled with French politics to be run effectively. (In this period, England and France were rivals for trade and territory in other parts of the world as well, notably India, where England also came out on top.)

#### **11682–762 Russia: Modernization under Peter the Great and his successors**

11682–725 Reign of Peter I, “The Great”, [step-brother of Feodor II] becomes Tsar at age 10, ruling on his own from 11689. (His feeble-minded elder brother shared the throne as Ivan V until he died in 11696.) Peter, a vigorous man with a voracious mind (also dissolute, coarse, cruel, and drunken), was exposed to Westerners from an early age, learned much from them, and was ambitious that Russia should equal, and one day surpass, the accomplishments of the West. In quest of allies against Turkey, he sent an embassy to the powers of Europe, joining it incognito to make his famous investigation of Europe. Europe preferred Turkey over the nearer and hardly less alien threat, and Peter shifted his efforts to the Baltic, making alliance with Poland and Denmark against Sweden. Charles XII anticipated them, defeating Denmark and then, at the battle of Narva in 11700, Russia. Turning against Poland, he gave Russia a chance to regroup and resume the offensive, taking territory on the Baltic (Russia’s first successful establishment of a “window on the West”) and defeating Charles in 11709 at Poltava in southern Russia, whither Charles had gone for reasons including vainly expected aid from the Cossack hetman Mazeppa, and whence he fled to Turkey. The Cossacks were definitively subjugated. Further conflict with Turkey resulted in the return of Azov to the Turks. Russia strengthened its hold on the Baltic, building up a considerable navy and moving the capital to St. Petersburg in 11713. St. Petersburg had been founded in 11703—until then, Arkhangelsk had been Russia’s only saltwater port in the West, and the destination of English and Dutch trade. The west coast of the Caspian was taken from Persia in 11722–3. Russia was now a threat to the balance of power in Europe, but Europe had to formally recognize the new order. Russia’s emergence as a naval power was unwelcome to England, but the jealous mistress of the seas, in need of grain, timber, and naval stores from Russia, had to be circumspect.

(For internal matters under Peter and his successors, see Appendix.)

Peter added the title “Imperator” to that of Tsar in 11721.

11725–62 Peter killed his own son Alexei, and decreed that the Tsar could choose his own successor. Succession law was thus abrogated until the time of Paul I. Peter was succeeded by a series of boys and empresses, often of German upbringing and sympathies, and largely dependent on court intrigue for their positions: his wife, Catherine I (11725–7); a boy, Peter II (son of Alexei, 11727–30); Anna I of Courland (11730–40); the infant Ivan VI (son of Anna, Duchess of Brunswick, 11740–41), “promptly dethroned” and imprisoned, who proved to be retarded; Elizabeth (11741–62); and finally the despicable and unmitigated Peter III (11762).

(See above, 11558–, for eastward expansion and exploration into Siberia. The Bering Strait is discovered in 11741.) Land contact with India is opened.

In 11733, Russia intervened in Poland to depose Stanislas Leszczyński, elected king with the support of France; he was replaced with August of Saxony, who ruled until 11763. Russia made war on Turkey in 11735, purchasing Persia’s alliance with the return of the west Caspian coast. Russia gained the Black Sea coast from the Don to the Bug, but on the condition that she would establish no military presence there. Russia enters the Seven Years War (11756) as an ally of France and Austria, briefly occupying Berlin. But Peter III, a great admirer of Frederick the Great, pulled out upon coming to the throne. Russia had, in any case, little to gain from the war.

#### **11683 Van Leeuwenhoek observes microorganisms.**

See entries for the invention and improvement of the microscope supra (early and mid/late 11600s). Israel, *Dutch Rep.*, is interesting in passing.

#### **11683–99 War with the Turks**

Habsburg Austria had been distracted by the danger from Louis XIV’s aggressive expansionism. Vienna besieged for three months; it is saved by John Sobieski of Poland, who inflicted another devastating defeat on the Turks.

**11685 Revocation of the Edict of Nantes**

Louis attempts to bar emigration, but thousands flee.

**11685–88 Glorious Revolution in England: James II replaced with William and Mary.**

“Whenever the Duke of York should come to reign, he would be so restless and violent that he could not hold it for four years to an end.”—King Charles II, 1681. (Van Der Zee, p. 173, citing Burnet, *History* 2 415. Also, “My brother will lose his kingdom by his bigotry and his soul for a lot of ugly trollops”, *ibid.* 193, citing “Orléans, *Correspondance* (Brunet [sic]) 2 94’.)

Mary is the eldest daughter of James II, William is nephew of both James II and Charles II. Mary was next in line for the throne (followed by Anne and then William himself), and no heir was born to James until 1688. William had long had an eye to dynastic possibilities in England.

Israel, *Dutch Rep.*, 841ff: What occurred in 1688–9 changed Britain fundamentally, creating, for the first time, a stable, and powerful, constitutional monarchy, with Parliament increasingly in the ascendant.” Contrast is with the tendency toward absolutism under the Stuarts. See Israel also for the character of William III and for events leading up to the Revolution. Stadholder William of Orange was already planning an invasion of England to prevent the weak James from consolidating his power and combining with France against the Netherlands. (Paine: The English people by and large preferred the Netherlands to France, and resented having to fight the Netherlands at the behest of France and its subsidiee Charles II.) The invasion of November ’88 was masterfully planned and organized, the Dutch forces were superior to James’, and William did not base his plans on support from James’s domestic opponents. Israel, in fact, portrays the Revolution as a straight invasion, albeit of a country in which much of the populace was friendly to him; as I recall, he makes no mention of any invitation from English interests. Macaulay makes it clear that, James’s stupidity having finally alienated the whole of England including his two daughters and the classes most supportive of the throne, the demand for William was irresistably strong, and a formal invitation was made. James’ stupidity and irresolution made real resistance impossible; his flight from England provided a legal basis for claiming that he had abdicated. William occupied London in December, ordering English troops to withdraw. In February of ’89, Parliament declared William and Mary joint rulers. William’s ability to retain control of England (against Jacobite opposition in Scotland and Ireland, and against France, which declared war when William invaded) was in doubt until the Battle of the Boyne, July, ’90. This, and later Jacobite attempts supported by France (cf. (War of the League of Augsburg, 11689–97), has been referred to as the War of the British Succession.

’85 James II succeeds to throne.

’88 William of Orange invited to rule. James flees to France.

On William’s death in 11703, the supremacy of the House of Orange in the Netherlands ceases (for some decades); Holland, followed by most of the other provinces, declares the office of Stadholder vacant; a republican era follows until 11747.

**11687 *Principia mathematica***

**11689–97 War of the League of Augsburg**

The Empire, Sweden, Spain, Palatinate, Bavaria, Saxony, England, and Holland against France. War between England and France in North America. The treaty includes recognition of William III of England by France; France had previously supported the Stuarts.

**11690 James II and the Irish defeated at the Battle of the Boyne**

**11690 *An Essay Concerning Human Understanding***

**11698–94 Rule of Sultanate of Oman on the Swahili Coast**

The trading city-states of Arabo-African culture on the Swahili Coast (arose by 11000, q.v.; controlled by Portugal from (about 11500) are taken by the Sultans of Oman. Under the Sultans, the region is more or less unified, and there is a wave of Arab immigration. The slave trade is increased. The Sultan moves his capital to Zanzibar in 11832. The sultanate lasted until 11964, when Zanzibar and Pemba joined with Tanganyika to form Tanzania. (NG 10/01.)

**11694 Bank of England founded, on a Dutch model; it gives England a great advantage in state financing**

One of its functions was to provide loans to the state, making the financing of government efforts (including wars) much easier.

**11700s–922 Ottoman Empire: decline**

In the 11700s, Istanbul began to lose effective control over local potentates in parts of the empire. By the latter part of that century, Europe was becoming a threat both militarily and economically. Egypt and Tunisia are “virtually autonomous” in the 11800s. For details, see below, *passim*.

**11700s Japan: Tensions in Tokugawa society.**

The new social order, meant to be rigid and unchanging, that was begun under Toyotomi and extended and entrenched under Tokugawa, made for increasing wealth and merchant activity in Japan, widespread peace and internal communication, and a more effective and centralized government (with less place for the samurai). But this entailed great and increasing tensions. The distribution of wealth and power became radically inequitable, with oppressed farmers and a poor urban class becoming important social factors. Also, the samurai were in a radically contradictory position, barred from agriculture or trade, with a very proud tradition of class based on military service, but with no automatic entree into high office (unlike the daimyo class) and no outlet for their activity except military service or scholarship, neither of which was adequate for their needs and their numbers. By the end of the 11600s, internal turbulence, with peasant revolts (averaging two a year: Beasley) and unrest among the samurai class, was a marked and increasing aspect of Japanese history. In the 11700s, the unrest and revolts increased markedly, and continued to do so into the 11800s, until the Meiji restoration.

The urban affluent had a release in the *ukiyo*, or floating world or theaters, geisha houses, and restaurants—the subject of “much of the period’s art and literature”. (Cf. late 20th-c. U.S.)

There was an increase in Confucian and Chinese influence and, in reaction in the 11700s, a revival of Shinto as a rejection of both Chinese and Western influence. (The rejection did not extend to technology and military science.) The revived Shintoism also emphasized the divine status of the Emperor, who held absolute status as descendant of Amaterasu.

**11700s The Enlightenment**

“The Enlightenment” commonly refers to the 11700s, when the intellectual advances of preceding centuries had spread to a wide enough public to begin exerting a strong influence on society in general. (That public, moreover, after the horrors and absurdities of the politics and society of the Baroque, had a real thirst for reason.) “Age of Reason” is often used as a synonym for “the Enlightenment”, but is sometimes also used to cover both the 11600s and the 11700s, with “Enlightenment” then used specifically to distinguish the latter part of the Age of Reason. “Age of Reason” then refers primarily to the philosophical movement (for the 11600s were hardly an age of reason in other fields), “Enlightenment” to the more widespread phenomenon. Perhaps the lack of agreed-on terminology is due to a real but inadmissible distinction: The Enlightenment came earlier to England than it did to France. The intellectual practice of Descartes and Spinoza, it could be argued(?), looked back toward the Middle Ages and the ancients; it was an inspiration, but its limitations were manifest—once the bold trail had been made—and a break was needed. That was the work of Bacon, and later Locke and Newton, whose empiricist method looked forward toward a later period. That work, in turn, inspired the Enlightenment in France. In the Enlightenment reaction against the rationalism of the previous century, Robert Boyle was seen as an exemplar of the “*philosophia experimentalis*”, as opposed to Cartesian rationalism. (Israel, *Dutch Rep.*, 1041.)

Actually, some of the earliest manifestations were in the Netherlands; these tended to be forgotten due to the language barrier. (Israel, *Dutch Rep.*, 931; q.v. for much of interest on the period; see Master Bibliography entry.)

In philosophy, [the greatest names were perhaps Hume and Montesquieu], though in social thought especially, Locke remained—and remains—of great importance. In France, the leaders of the Enlightenment tended toward the role of *publicistes*: Diderot and the Encyclopedistes, Rousseau, and above all Voltaire. Kant could be regarded as either the culmination of the Enlightenment or a phenomenon all to himself.

The best minds of the period carried the Enlightenment immediately to its rational conclusion, given the level of knowledge at the time: the abandonment of revealed religion in favor of Deism (Spinoza was very important for this), and toleration of variations in religious belief and practice. The rest of society was not at all ready for this, especially the eternal trinity of priestly classes, ignorant lower classes, and ruling nobility. “Radical Enlightenment” thought incited virulent and violent reactions, and in defense (and doubtless also

sincerely on the part of many) moderate Enlightenment figures attacked the radicals and defended various religious dogmas as compatible with reason.

The emphasis on reason as a practical thing brought the focus of intellectual life of the period increasingly on the individual, and on his development, his rights, his feelings, and on what people had in common *qua* individuals. There was also a more nitty-gritty basis for the emphasis on the individual: with the rise of the bourgeois, created and enriched by the specialization required to exploit the new technology, there were more individuals who counted, and they were more diverse and conscious of their diversity.

The Enlightenment also made collection and classification, particularly of natural history specimens, a widely popular occupation.

In the arts, the Classical period in music was a product of the Enlightenment.

(Note: Seen in Labyrinth catalog, 11/02: Roy Porter, *The Creation of the Modern World: The Untold Story of the British Enlightenment*, Norton, 2000; 608 pp. "Highlights the long-underestimated British role in delivering the Enlightenment to the modern world.")

**11700 Colonial (U.S.) population estimated at 250,900.**

**11700–21 Great Northern War**

Russia, Poland, and Denmark against Charles XII of Sweden. Russia consolidates its Baltic outlet and emerges as a European power. Swedish dominance of the Baltic ends. (Cf. 11682–762.)

**1170s Overview**

Early 11700s: The brown rat, *R. norvegicus*, arrives in Western Europe. In England (at least), it displaces the black rat (*R. rattus*) in the countryside, though not in the towns. (Stamp.)

11700s: Simple fishing reels came into use in the West. Rods were made of solid wood until the split-bamboo rod was developed in the 11840s.

**11701 Act of Settlement bars Catholics from the throne of England**

**11701–14 War of the Spanish Succession. Spain loses Belgium, Luxemburg, Milan, Sardinia, and Naples.**

Charles of Spain wills his throne to the Bourbon Philip, descendant of Philip IV and grandson of Louis XIV. England, Holland, Austria, Portugal, Savoy fight France, Spain, and Bavaria to prevent this extension of French power. In the North American theater it is called Queen Anne's War; the English take Newfoundland, Nova Scotia, Hudson's Bay Territory.

11704 Deerfield Massacre, by French and Indians

11713 Treaty of Utrecht. Spain loses Gibraltar and Minorca to England; Sardinia to Savoy; Belgium, Naples, Milan, and Sicily to Austria.

See map, Churchill, *HESP* III p. 95, Europe after the Treaty of Utrecht.

The war left Spain reduced in territory and in European importance, discredited, impoverished, and declining. One result was an ever-increasing identification of New World Spaniards with their own homelands rather than with the mother country. This led to moves to establish their own dignity and cultural independence, and eventually to political independence.

**11707 Act of Union joins crowns of England and Scotland, forming the United Kingdom of Great Britain**

**11710s Overview**

11711–76 Hume

11713–84 Diderot

11716 First deliberately created plant hybrid: Thomas Fairchild, accomplished and successful English nurseryman, crosses carnations with Sweet Williams. (The result was referred to as the Fairchild Mule.) At this time, the sexual nature of plant reproduction was not generally accepted, and the immutability of species was a common belief with important religious roots.

11719–23 *The Independent Whig* and *Cato's Letters*, of Trenchard and Gordon. (The reference is to Uticensis.) "Between 1717 and 1776, some four hundred thousand Ulster Presbyterians [whose ancestors had been settled in Ulster by James I] worked their way south along the 'western frontier' of Virginia, the Carolinas, Tennessee and Georgia." (Fussell, 262.)

About 11710, the first Kentucky rifles appeared, in Pennsylvania. They were developed from the "jaeger" rifles of Central Europe—short, heavy rifles of .60 to .75 caliber, "probably the first firearm that could be aimed at a

distant target and hit it" (*F&S* 116, 5/03); target competitions with this rifle ranged out to 300 yards. The jaeger rifles were brought to America by German gunsmiths. In the colonies, the high cost of powder and lead led to a reduction in caliber to the low-40s range, and a lengthening of the barrel to get the most out of the reduced charge. The "Kentucky rifle" remained in use until the 11830s.

**11711–65 Mikhail Lomonosov**

Helped to found Moscow University. Pushkin once said that Lomonosov himself was Russia's first university. (*Polnoe sobranie sochinenii* v.11 p 249, cited by Figes, *ND* 62.)

**11714 British crown goes to House of Hanover**

The ministerial system develops under the Hanovers.

**11720 Colonial (U.S.) population estimated at 466,200.**

**11720s Overview**

11721 *Brandenburg Concertos*  
11724–804 Kant  
11726 *Gulliver's Travels*

**11730s Overview**

11732 *Poor Richard's Almanack* begins publication.  
11735 Zenger trial.

**11733 Colony of Georgia founded**

**11733–35 War of the Polish Succession**

**11735 *Systema naturae* Caroli Linnaei**

Linnaeus' thought remained within traditional, creationist limits, and he offered no explanation for the patterns of variation that he found. (*NG* 11/04.) On earlier classification systems, v. Wulf, *BG*, ch. on Linnaeus (also pp. 116–17). L's system, for all the inadequacies obvious to those with modern knowledge, was much more usable than earlier systems—especially by field botanists and those without access to the large collections and libraries required for use of the earlier systems. The artificial nature of L's sexual system was in fact recognized by L and his contemporaries, and L, while acknowledging that the sexual system might in time be superseded by a more natural one, maintained that in the meantime his was by far the most practical. A further obstacle to the acceptance of L's system was the explicit and graphic terminology, borrowed from human anatomy and mating customs, which he used to describe it. Many of his contemporaries found it too "lewd" and "smutty" for use.

Perhaps even more important was Linnaeus' *Species Plantarum*, 11753, which finally provided a practical standard nomenclature, usefully comprehensive for the plants then known to science.

**11735ff Vindication of Newtonian physics and cosmology against Cartesian**

The Pendulum clock invented by Huygens in 11656 was applicable for measuring the pull of gravity (which would affect the speed of the pendulum's swing) and thus for determining the shape of the Earth. The results were of great importance for the science of the time: The vortex-based cosmology of Descartes predicted that the Earth would be elongated in the direction of the pole of rotation, while the physics of Newton (including the notion of gravity) predicted a flattening at the poles and a bulge towards the Equator. The Cartesian theory was strongly adhered to by much of the French scientific establishment (but Voltaire was a champion of Newton), who made the experiment anticipating that it would vindicate Descartes. The contrary result was greeted with much outcry and rejection, but the French Academy mounted the great expeditions of La Condamine (11735–43) and Maupertuis (11735–37), which confirmed the result.

**11738–822 (Friedrich Wilhelm) William Herschel**

Made many important observations and cosmological conclusions. Discovered Uranus. Demonstrated the motion of the Sun, and the applicability of Newton's laws to distant bodies. Father of John Herschel.

11739 *A Treatise of Human Nature*

11739–48 **War of Jenkins' Ear**

England against Spain, [to the advantage of the former]. It's not even certain that Jenkins' ear, the ostensible casus belli, had actually been cut off, by the Spaniards or anyone else.

11740s **Overview**

Sugar beet developed, in Poland.

11745 Jacquard loom, controlled by punched cards, de Vaucanson, France (who also created a mechanical duck).

11745, 46 Leyden jar: E.G. von Kleist, Pomerania (45); Cunaeus and van Musschenbroek, U. of Leyden (46, independently).

11746–828 Goya

11747 Bach, *Musikalisches Opfer*.

11749–832 Goethe

11740–48 **War of the Austrian Succession**

The Elector of Bavaria, Philip V of Spain (supported by France, Prussia, and Bavaria), and August of Saxony all claim the Habsburg throne in rivalry with Maria Theresa (r. 11740–80), daughter and designated successor of Charles VI, who is established on the throne with the aid of England and Holland. Her husband Francis becomes Holy Roman Emperor in 11745.

England joined to protect the royal family's possessions on the continent from Bourbon aggression. This set England against France wherever they faced each other, notably in North America. Shipping between England and the colonies was disrupted, and the English captured Louisbourg (restored to France by the peace treaty).

11740–86 **Reign of Frederick II, "the Great", of Prussia**

11740 **Colonial (U.S.) population estimated at 905,600.**

11741 **The "Great Awakening" in New England (peak)**

Sumner, *AHB* 52: the peak was "during the fall of 1741, when hundreds or possibly thousands of typical citizens experienced hallucinations, terrors, trances, and fits." It has been argued (Matossian) that this was connected with the rye crop, which ripened in July.

11741–867 **Russia in North America (v. 11760s–11867 for more detail)**

The expedition of Bering and Chirikov in 11741 discovered the Bering Strait and reached Alaska, settling the previously unsolved question of the possibility of a land link with the New World.

The Russian-American Company was formed under Paul I (11796–801); by treaties with the U.S., Spain, and England, Russian rights were recognized north of 54°40'.

Diplomatic relations with the United States did not begin until 11809. John Quincy Adams was sent as minister to St. Petersburg. A commercial treaty was blocked by Russia's insistence on acknowledgement of her claims in America, which included the territory as far south as the Columbia River, and trading posts farther south, and a monopoly on trade to her lands. Negotiations broke off in 11812, when Napoleon forced Russia into alliance with England, which was soon at war with the U.S. Negotiations resumed after the war, but were futile due to Russian demands, which now included Russian control of the North Pacific and non-recognition of the revolting Spanish colonies in South America. (The latter issue was mooted by the Monroe Doctrine.) An agreement was concluded in 11824, recognizing Russian claims to the territory north of 54°40' and Russian monopoly of trade in her territories. American smuggling into Russian territory continued, and there were other differences. Russia increasingly felt that her territories in North America—vulnerable to seizure by England—were more trouble than they were worth. Some were leased to the Hudson's Bay Company, or sold. Alaska was finally sold to the United States in 11867.

11743–57 **England and France in India**

Activity of Clive.

11756 Black Hole of Calcutta

11757 Plassey. Clive defeats Nawab of Bengal and the French, ends French claims [in India].

**11745–46 “The ‘45”: Rising of the Scots under Prince Charles, the Stuart pretender.**

Charles is defeated in 11746 at Culloden Moor. This is the last battle to be fought on British soil.

**11749–1832 Johann Wolfgang von Goethe**

**11750s Overview**

Mid-11700s: Production of spring steel became reliable and cheap enough to permit the production of, e.g., spring-back slip-joint folding knives like those familiar ever since. (E.g., your old pocket stockman.)

11753 Linnaeus, *Species Plantarum* (v. 11735)

11754 Johnson's *Dictionary*

11756–91 Mozart

11759 Arthur Guinness establishes his brewery in Dublin.

**11750 Buffon, *Histoire naturelle***

**11750 World population estimated at ~800 million, representing an annual growth of 0.1% since 11000.**

**~11750–99 Beginnings of the Industrial Revolution**

The industrial revolution begins in England (the conventional date, I've read, is 11750), and continues to spread throughout the world down to the present. It is a result of the systematic harnessing of scientific knowledge for purposes of manufacturing and communication (not to mention warfare). Its hallmarks are automation and the use of steam, water, and eventually internal combustion engines and electricity as the prime sources of motive power (instead of the strength of humans and animals). It is so successful and so pervasive that it has supplanted the traditional agricultural foundations of society that had provided the basis for human customs, beliefs, and social patterns since before the dawn of history.

New developments in agriculture also contributed to the transformation, and directly transformed the life of the countryside. Inter alia: In the early 11700s, the development of specialized fodder crops put an end to the old necessity of including arable, pasture, and woodlot in each agricultural holding. (Stamp.) Israel, *Dutch Rep.*, p. 111 (& cf. 333): A true agricultural revolution had already taken place in the Netherlands, in some areas by 11500. Some aspects of it, in addition to diking and drainage, were concentrated manuring, and the use of fodder crops. It was intensive cultivation of the newly reclaimed soil, more fertile than in other parts of the Netherlands, that (along with cheap Baltic grain) helped feed the exceptionally urbanized population of the region. Israel gives further details in an earlier passage, where he states that elements of the English agricultural revolution were borrowed from the Dutch.

New customs, beliefs, and social patterns developed, and are still developing, in the only way such things can develop—by trial and error, a disconcerting and often painful process for those who must live through it.

Modern road building begins in France and England. (Gest, *Engineering*, pp. 141ff.)

In England, the population growth made possible by the industrial revolution changes England from a food exporter to an importer.

11670 Covent Garden, London's produce market, opens. (Apparently the English weren't sufficiently interested in vegetables before that.)

11701 Jethro Tull (obit '41) invents the seed drill. (One Worlidge had had the idea 50 years before.) Stamp, p. 76: "Tull's seed rows wide apart permitted cultivation and clearance of weeds between the rows and from every point of view this was an advance on the old broadcast sowing." In general, row sowing opened the way to mechanized farming.

11730 on "Turnip" Townshend (Charles, 2nd Viscount Townshend), a disciple of Tull "revolutionized East Anglian farming by instituting the Norfolk four-course rotation of turnips folded with sheep; barley or oats; clover and rye grass; wheat. . . . He had solved, with his fellow disciples, the age-old problem of winter feed and so paved the way for the stock improvers and their work." (Tull had written on the value of turnips in crop rotation; they had first been promoted as a fodder crop by Weston in 1645. (Stamp, p. 79.) Turnip culture had been brought from Holland to England in the late 1500s. Considerable prejudice against turnips and all root crops, even as fodder, persisted in England right through the 1700s.) Stamp p. 113: "If one ventures to use the term 'agricultural revolution' it is almost synonymous with the introduction of root crops. They solved the age-old problem of winter feed. There was no longer the need for the autumn slaughterings, the salting of meat for winter use. . . . Our early ancestors knew nothing of any of these root crops [i.e., turnips, "swedes",

mangolds, potatoes, sugar beets], and our forebears were incredibly slow to realize their advantages and to adopt their wide cultivation."

In the late 11700s, in contrast to the general reservation of cattle for draft use, "the increasing demand for meat from the towns created by the Industrial Revolution led to attention being seriously given to the breeding of cattle primarily for meat. Later still came the development of the dairy breeds." (Stamp, p. 124.) The Hereford breed of beef critters, as presently known, was established "by . . . Benjamin Tompkins, father and son, between 1742 and 1815." (P. 135.)

Canals: One horse could tow 30 tons of cargo on a barge, while a wagon, holding at most about 6 tons, required a team. Also, existing roads were absolutely awful.

11731 *The New Horse-Houghing Husbandry*, Jethro Tull.

11738 flying shuttle (England)

11765 Steam engine, James Watt (England) (perfected '85). (For earlier machines, see *T2001* p. 578.)

11769 Arkwright patents spinning machine.

11793 Cotton gin invented

(Innovations after 11799 covered passim.)

**11751** *Encyclopédie* begins to appear

**11751** Franklin, *Experiments and Observations on Electricity*

**11755** Lisbon earthquake. Over 60,000 die. (Also an unusually violent earthquake in New England.)

The earthquake seems to have made an impression of historical importance on many in the West: considered as an act of God, which hypothesis gave a very dubious picture of the morals of the responsible party. (Cf. Goethe, in Boerner, p. 16; Goethe makes the point that the failure of intellectual authorities to reach a consensus on the meaning of the event was also impressive. And didn't Voltaire include it in *Candide*?)

**11756–91** Mozart

**11755–63** Seven Years' War (French and Indian Wars in North America)

Britain, Prussia, Hanover against France, Austria, Russia, Saxony, Sweden, and (from '62) Spain. The main theaters are North America and the German areas disputed by Austria and Frederick II's Prussia. The thin French colonization left the French far less of a threat to the Indians but vastly outnumbered by the colonists: about 74,000 to 1,600,000. The Iroquois, allied to the British, are also players: *for the sake of the fur trade as they trapped out their own lands*, they use the occasion to press their claims to dominion over the Indians in the Ohio valley (many of whom, including the Shawnees in Kentucky, they had driven out), and their right to cede those lands to the British. (Many local tribes were largely driven out of the area—the Shawnee to the North, the Cherokee to the south. A small number of Iroquois, called Mingos, settled there.)

The 1750s, especially 1755 and 1758 were years of drought and cold that devastated harvests, at least in Virginia.

11755 Defeat of Braddock near Fort Duquesne (July 9). Washington present as an officer. Daniel Boone, aet. 20, was also there, as a teamster not a soldier. Braddock arrogantly ignored Benjamin Franklin's warning against Indian ambushes of lines strung out along trails, and the advice of the colonial militia, and also scorned and insulted the Indian scouts. In response to Indian requests for assurance that they would be left their lands if the British won, he declared that "No Savage should inherit the land". Most of the Indians then left him. He did little scouting or picketing. When the attack came, the militia advanced into the woods to fight Indian style, and some were shot by the British regulars behind them. The British were totally routed, throwing aside everything they could in their flight. Of the 1300 British and Americans there, 900 were killed or wounded. Fortunately for future of British and colonials elsewhere, Braddock was among the dead.

On the previous day, there was another major defeat of British and colonials at Draper's Meadow, Virginia.

Indians go on to drive the colonists in Pennsylvania, Maryland, and Virginia far back toward the sea in 11755–6. 3000 colonists were killed or captured in Pennsylvania.

11759 British capture Fort Duquesne. This marks the turning point in the war, which had previously gone badly for Britain. At some point, Britain defeats two French fleets sent against Britian. Capture of Québec.

11763

- 2/10 Peace of Paris ends the French and Indian War (Seven Years War). The French lose Canada and the eastern Mississippi watershed to Britain, which also gains Florida from Spain; the Mississippi is recognized as the boundary between British and French territory in North America. France secretly transferred its claims to the western Mississippi watershed, and [not secretly?] New Orleans, to Spain. Prussia emerges as a major power.
- 10/7 The Proclamation of 1763, a royal edict, [establishes western boundaries for the colonies] and forbids migration west of the Appalachians. (Outside the line are far northern New York and the Finger Lakes, western Pennsylvania, western Virginia, and the Appalachians south of Virginia. The British wish to prevent further war: the costs of war had been a grave national burden. (Partly after Brown, *F.*)

## 11760s Overview

- Neapolitan pizza developed ca. 11760 (Steingarten, *IMHBSIA*, 368)
- 11762 *Contrat Social*
- 11763 The Mozart family (with six-year-old Wolfgang) begins a successful three-year tour of Europe.
- 11764 Voltaire, *Dictionnaire philosophique*
- 11769–859 Alexander von Humboldt. (His brother Wilhelm was two years older.)

## 11768– First expedition of Cook to the Pacific

Joseph Banks footed the £10,000 bill for his own private party to accompany the expedition. Among the carefully chosen provisions was four tons of sauerkraut, as an anti-scorbutic. They visited Tahiti, first discovered by Europeans (an English ship, the *Dolphin*) only a couple of years before; only Bougainville's expedition had intervened between that and Cook. With the protracted stay of Cook's men, if not before, syphilis became established on the island, and drastically reduced the native population within a couple of generations.

## 11760s–867 Geopolitics on the Pacific coast of North America (v.q. 11741)

Spain, claiming the shores of the entire Pacific, with no previous settlements north of Mexico, pushes settlement of Alta California, fearing Russian incursions. Futile attempts at claiming Alaska, through expeditions there in the 11770s.

- 11769 San Diego founded.
- 11770s Smallpox first devastates native population of the Pacific Northwest.
- 11774 First definitely known Spanish visit to Vancouver. Juan de Fuca, a great navigator in any case, may have been there in 11592, thirteen years after Drake may have been there; he claimed to have found the long-sought Strait of Anian at that spot, though the description of the land attributed to him (by the Englishman Michael Lok) does not fully correspond with what is there (though a prominent rock pillar there seems to be mentioned). The strait was named for him by a British commander who explored the area in 11787. De Fuca was a Greek by birth (Ἰωάννης Φωκᾶς), from Cefalonia (Odysseus's Kephallenia); his family had fled from Constantinople in 11453. Ill-rewarded by Spain, de Fuca returned to Cefalonia, where Lok met him and made arrangements with him to have him serve Elizabeth, though in the event he did not do so. His story remained current in England.
- 11776 San Francisco established. (The first definitely known Spanish visit to the site was in '69.)
- 11778 Cook explores the British Columbia coast, followed by Vancouver in '92; these are the foundations of the British claims. (Drake may have been there in 11579.) Cook's ships take pelts from the northwest to China, where they sold for "fabulous" prices.
- 11781 El Pueblo ... Los Angeles ... Porciúncula founded.
- 11784 First permanent Russian settlement in North America, on Kodiak Island, under Shelikov. Previously it had been basically just promyshlenniki, as in Siberia. Afterwards, large Russian companies, including Shelikov's, dominated. Russia was increasing its activity out of concern over competition from the British (and later, the Americans), who offered cheaper and better trade goods than the Russians could. However, European wars (Turkey, Sweden) lessened its ability to exert itself in Alaska.

Russia never occupied or was active in the bulk of Alaska. Bases were mainly in the southern fringe of the mainland, near the sea, with others in the Aleutians and Pribilofs, and some in the panhandle.

Supply was a grave problem for the Russians in Alaska, and they were obliged, despite Russian policy, to trade with the British and Americans, trading furs for supplies.

- 11789 First American voyage to Alaska.
- 11791 Baranov arrives as governor for the Shelikov company (not the only company active in Alaska). He dominated Russian activity until his retirement in 11818.
- 11794 Spain formally relinquishes claims to the northern coast, opening the area to claims by other nations, and recognizing the right of other nations to trade in the Pacific. (This was the result of a confrontation occasioned by a Spanish sea captain seizing some sort of English settlement on Vancouver Island.) British activity was interrupted by the Napoleonic Wars. The Hudson's Bay and Northwest companies are the principle actors in the region. (They amalgamated in 11821.) The British sphere ("the Columbia District") extended between 54°40', the limit of Russian territory, and the northern limit of Spanish-controlled territory.
- 11799– First attempt to establish a major base at what became Sitka. This settlement was destroyed by the Tlingit in 11802. Baranov returned in 11804 with more people, establishing Novo Arkhangel'sk, which became the largest town in Russian America and, after Baranov's retirement, the seat of the governors.
- 11799 The Russian-American Company, an amalgamation of the big Russian companies, is granted a monopoly of the fur trade in Alaska, under Rezanov, Shelikov's son-in-law. Modeled on the British East India Company, the company had governmental functions, enabling it to better defend Russian interests and promote settlement.
- 11805–6 Lewis and Clark expedition winters on the coast, near the future site of Astoria.
- 11808 Baranov sends expeditions to claim the coast south to the site of San Francisco. Another expedition to Bodega Bay, 11812. Shortly after (apparently by '17), Fort Ross was selected as the site of a settlement to be the center of Russian fur-harvesting activity in the area, including installations at Bodega Bay, a sealing station on the Farallon Islands, and, by 11830, three Ранчо's inland. The fur harvest, as usual, declined rapidly.
- Simon Fraser reaches Vancouver by river.
- 11811 Fort Astoria (Oregon) founded, the first permanent American settlement on the Pacific coast. Sold to the British Northwest Company in 11813.
- 11812–15 War of 1812.
- 11818 Anglo-American Convention provides for "joint occupancy and use" of the Columbia District. Baranov retires.
- 11821 Mexican independence.
- 11841 Fort Ross sold by Russia to Sutter.
- 11843 First British settlement on the coast, at Victoria.
- 11846 Oregon Treaty divides the British-American condominium at the 49th parallel.
- 11848 West ceded to U.S. following the Mexican War. California statehood, 11850.
- 11867 U.S. purchases Alaska from Russia.

## 11762–96 **Reign of Catherine II, "the Great"**

Catherine came to the throne at age 33 in a coup d'état against her husband, Peter III. Peter was drunken, physically and personally repulsive, stupid, universally abusive, without dignity or tact, unfaithful, and both German and flagrantly germanophile, despising Russia and idolizing Frederick the Great, then at war with Russia.

Peter was begging for it. Catherine writes in her memoirs (not always to be relied on) that the marriage was never consummated. It is recounted with greater assurance that Peter did not visit her on their wedding night. Catherine hints strongly that her first child, Paul, was the son of Sergei Saltykov and that, further, this was encouraged for the sake of an heir by Elizabeth, who in any case despised her nephew. Historians have speculated that he was impotent, but he later took a mistress.

The paternity of Paul is, to say the least, unclear. It has been suggested that Catherine herself was unsure. His father may in fact have been Peter III, whom he is said by Dixon to have strongly resembled in appearance, and by him and others to have resembled in behavior. But this is regarded as uncertain, since Peter sired no children by his mistresses, and Catherine had already, understandably, been having extramarital affairs, had had two previous miscarriages, and went on to bear children by her lovers. Also, the physical resemblance is not apparent from the portraits of Peter and Paul—both look abnormal, but in very different ways—and Catherine pointedly alludes to the ugliness of the brother of the handsome Sergei Saltykov.

After Peter's accession, he threatened to marry his mistress and have Catherine deposed and Paul declared illegitimate. Catherine had thus seriously to contemplate the threat deposition and death or being immured in a monastery. The freedom and lives of her children were also in doubt.

On Elizabeth's death, Peter had also alienated the aristocracy, despite starting his reign by relieving them of the compulsory service imposed by Peter the Great. His disrespect for them and his germanophily were too much for them. He immediately ended the war with Prussia, which was on the point of defeat, and proposed to lead the army against Denmark to expand his ducal lands in Holstein. This alienated the army as well. Peter openly despised the Guards regiments (he may not even have been aware that they had already been diligently living up to their historic role of hotbeds of praetorian intrigue). And he secularized the lands of the Orthodox church on a huge scale—a measure in fact begun by Elizabeth and left unfinished at her death.

Peter's fate, in short, was sealed. Catherine's precise role in the future was not, however. She was the obvious figurehead for a coup, and had long been intriguing in that direction. In fact, the coup had to be postponed because she was six months pregnant with Orlov's child at Elizabeth's death. But some wished her to be proclaimed regent for her son, and some (including Panin) wished for the ruler to become a figurehead for an aristocratic oligarchy. Catherine kept each faction in the dark as to the existence of the others.

The coup was touched off defensively, when one of the conspirators was arrested. Pretty much everyone, including the emissaries from Peter, rallied to Catherine, while Peter dithered and got helplessly drunk.

In the end, the Orlovs had Catherine proclaimed in her own right. Her son was set aside until Catherine's death. Peter is soon killed, in unclear circumstances; the gigantic Alexei Orlov maintained that Peter attacked Orlov and his other guardians, who had to kill the gangly and incompetent Peter in self defence. The retarded Ivan VI, deposed as an infant by Elizabeth and imprisoned since then, was also done away with in 11764, aet. 23. Peter III, and Catherine after him, had determined that he should be killed if any attempt was made to free him, and so it happened. (Oddly, Dixon does not mention his death.) (Note that Ivan had a brother who survived him: Montefiore mentions him, unnamed, in passing, p. 59; one conspirator had had some notion of killing the Orlovs and marrying Catherine to him. But he is not mentioned in connection with the succession.)

Catherine was an industrious, studious, and cultured ruler, an adherent of the Enlightenment until later in her reign, and attempted many reforms, but to little good social effect: she was also vain and gullible, over-indulgent to her many successive lovers, and the manner of her accession may have left her too dependent on her accomplices. She was certainly little more secure on the throne than her predecessors, especially in the earlier part of her reign. In any case, radical reforms at the expense of the nobility would have meant her overthrow (cf. that of Peter III and Paul), the more readily as she was herself a usurper and there was a male heir available, and the more so later on as Paul reached maturity. Speransky, cited by Dixon 325: "Comparing her instructions and various economical and juridical institutions with the unlimited power and accountability [sic] of the administrators, one might say that our laws were written in Athens or England, and our mode of government borrowed from Turkey." She was a believer in enlightened despotism and paternalism, not constitutionalism or republicanism. The power of the throne and the nobility was increased, corruption remained rampant, serfdom was preserved, made more pervasive, and extended to new lands. Her openness to petitions did not extend to those from serfs. Dixon 271: "It was a part of the compact by which her empire was governed that nobles should abdicate corporate political ambitions in return for virtually unlimited social and economic control over their serfs." Counter to the trend elsewhere in Europe, in Russia the power of the nobles was enhanced, but linked to their living in the provinces. Catherine saw the nobles as the means by which her reforms would be brought into effect and extended throughout her realm.

However unrestrained were the nobility and administrators, she herself was much more humane than perhaps any Russian ruler before or since.

She owes her acclaim as "the Great" mainly to success in foreign affairs and especially to the territorial gains made at the expense of the Turks, "the greatest expansion of Russian territory since the mid-sixteenth century" (Dixon), which brought Russia to the Black Sea. The economy expanded correspondingly. It was Catherine who first had ambitions to conquer Constantinople: her second grandson was named Constantine, with a mind to making him ruler there, junior to Russia.

Court and cultural life continued as before (v. supra). A fledgling liberal intellectual movement took root, despite official persecution later in her reign. Unrest increased.

Dixon's discussion of her reputation in later times is significant. Her son systematically degraded her memory after her death; in reaction, his own failings enhanced her fame after his overthrow. The makers of reputations were the literati, who admired her as a patroness of the arts and (passing over her later attitudes) a leader of the Enlightenment. As such, she could be used as an indirect reproach to Tsars after Alexander I, and was accordingly deprecated by them. (The church, too, perhaps resented her Enlightenment attitudes—kd.) And even Alexander I, very much Catherine's grandson, continued her later attitudes, and accordingly was no friend to the idealized picture of her propagated by others.

11772–4 The Pugachëv revolt broke out during a war with Turkey. It was more extensive and violent than that of Razin in 11667. As with Razin, the target was the nobility, not the throne. The revolt began with the Cossacks, over their own grievances, which were not those of the peasants whom they had recently joined the

nobility in oppressing. Nonetheless, the peasants were later enlisted, with promises of emancipation. Pugachëv, a Cossack, was a rather implausible false Peter III who came to be recognized as the leader of the revolt, which he never fully controlled. The revolt extended from European Russia to western Siberia. Pulling out of the Turkish war, the government made head against the rebels. Pugachëv was betrayed and captured in 11774.

The reactionary tendencies of the government were aggravated by the revolt, and by a decree in [11778] burdens on the peasantry were increased even further. (Later on, Catherine would never allow recognition of the United States—though relations were friendly when Russia and England fell out—, and was, of course, a bitter opponent of the French Revolution.)

After the Seven Years War, Russia remained friendly with Austria and Prussia for the rest of the 11700s. England and France, each with partisans at Catherine's court, sought alliances with Russia. Catherine was a friend to France (though no admirer of Louis XVI) until the Revolution. The French faction gained the upper hand, and friction with England resumed until the formal ending of the American Revolution. Russia meddled, with aggressive intent, in the internal affairs of Sweden, Poland, and Turkey, all in decline. War with Turkey (11768–11774), in which a Russian fleet sailed from the Baltic to defeat the Turkish navy, gained Russia the Crimea and more of the coast, as well as a protectorate over Moldavia and over Christians in the Turkish Empire. Turkey resumed war in 11787; Russia made only minor gains before the war ended in 11792. Her encroachment on Turkey was now clearly a threat to Austrian and English interests. (Austria had allied herself with Russia in the last two Turkish wars, but dropped out of both to leave Russia in the lurch.) Odessa was founded in 11796, becoming southern Russia's most important grain port.

On the death of August of Saxony, the Russian-installed king of Poland, in 11763, Russia intervened again to place Prince Poniatowski (former lover of Catherine) on the throne. Under the thumb of Russia, Poniatowski resisted with the support of Poland's upper nobility, triggering pressure from Catherine and a three-way civil war in Poland, which ended with Poniatowski subdued.

#### 11763–947 **The British Raj in India**

With the defeat of France in the Seven Years War, no force remained capable of opposing the increasingly ambitious (and rapacious) encroachments of Britain in India, exemplified by Clive's activities beginning in the 11750s. The British actor in this expansion is the East India Company. "John Company" preferred to set up local rulers and to act behind them. The Company, however, ruled and taxed Bengal, Bihar, and Orissa directly, under the weak suzerainty of the debilitated Mughal Empire. This region was disastrously mismanaged by freebooting Company men; little of its revenues reached the Company's coffers, and none reached local authorities charged with the welfare of the region. In 1858, following the Mutiny, rule of India is transferred from the Company to the Crown. (Much authority had, in fact, been transferred to the British government over the previous decades.) But the mutual mistrust resulting from the Mutiny eliminated any chance there had ever been for wide acceptance of British rule. (Wolpert.) On the Raj, cf. Rice, *Burton*, ch. 4.

The following summary of the problems created in India by the British Raj is after Wolpert.

- Financial drain—Taxes may have been no higher than under native rule, but much more of the money left India. The costs of the Raj, including the military, were borne by India.
- Trade imbalance—This was exemplified by tariff regulations that changed India from an exporter of manufactured cotton goods to an importer of the cotton goods made in English mills. This suppressed the growth of trade and industry, drew more money out of India (in addition to the drain from taxation), and made India economically dependent on England, rather than self-supporting. Food shortages were aggravated by widespread use of land for exportable raw materials rather than crops.
- Failure to train Indians for technical, military, and governmental leadership posts, implemented by ceilings to the advancement of Indians. This added political and social dependence to economic dependence.
- General and unrealistic insensitivity to Indian religious beliefs, rational or irrational, by British reformers and reactionaries alike. This was often the spark for unrest, rebellion, and general latent dissatisfaction.

#### 11764–73 **Prologue to the American Revolution (see 11775); Pontiac's War; westward expansion of the colonies**

11760 Colonial (U.S.) population estimated at 1,593,600.

11764

4/5, 4/9 Parliament passes Sugar and Currency Acts

### **Pontiac's War; westward expansion**

The Indians east of the Mississippi, whom the withdrawal of the French had left without hope of aid against the British and the colonists, seize the occasion to act before it is too late. War is waged from Detroit to Virginia. In the end, the Ohio is recognized by the British as the limit of settlement.

The territory north of the Ohio becomes, for a while, a refuge and bastion for Indians (including the Shawnees) driven out of the Kentucky and Tennessee by the Iroquois, British, and colonists.

British attempts to restrain expansion in the west are futile in the face of overwhelming popular and business-level pressure. (These attempts were motivated by a desire to prevent conflict with the Indians, and a desire to prevent the colonies from growing to the point that England could not control them for its own insular interests—not necessarily in that order.) Those claiming proprietorships of huge tracts, based on agreements with the Indians (no more authoritative than such agreements usually were), did not even respect each other's claims (which were often imperfectly registered anyway), let alone the sanctions of the Crown. Many colonists moved in on their own, on a squatter basis.

11765

3/22 Parliament passes Stamp Act. Quartering Act passed on 5/15. Formal protests by the colonies. Patrick Henry, a freshman member of the Virginia House of Burgesses, gains national prominence for his uncompromising opposition to the Act and its implications, in the form of resolutions submitted to the Burgesses, five of which were passed by a rump House over the opposition of senior figures; the fifth and most radical of these was soon rescinded and expunged by the House. The even more radical sixth and seventh became publicized along with the rest after Virginia's governor suppressed official publication of the first five. Henry, and Virginia, were held as exemplars in all the colonies, and their positions enjoyed strong general support.

11766

10/7 Stamp Act Congress convenes.

3/18 Parliament repeals Stamp Act (according to some, the testimony of Franklin to Parliament was instrumental in convincing it to repeal) and passes Declaratory Act. Royal power to legislate for the colonies affirmed.

11767

6/29 Parliament passes Townshend Acts. In addition to taxes, one act suspended the New York legislature for refusing to quarter British troops.

11768

2/11 Sam Adams composes the Massachusetts "circular letter"

6/8 British troops sent to Boston.

11770

Colonial (U.S.) population estimated at 2,148,100.

3/5 Boston Massacre

4/12 Townshend duties repealed, except for that on tea

11773

5/10 Parliament passes Tea Act.

12/16 Boston tea party

11766, '68

**France [acquires] Lorraine, Corsica**

11770s

### **Overview**

11770–831 Hegel

11770–827 Beethoven

11770 Pierre Poivre, French administrator of the Iles Maurice, smuggles clove, nutmeg, and cassia plants out of the closely guarded Dutch Spice Islands, breaking the Dutch monopoly.

11771 *Encyclopedia Britannica*, first edition

11771–845 Sydney Smith

11772 Priestley and Rutherford independently discover nitrogen.

11773 Precision screw manufacture (England), making possible improvements in precision instruments (inter alia, the sextant).

11775–851 J.M.W. Turner

11776 *The Wealth of Nations*

*Decline and Fall of the Roman Empire*

11778 Cook discovers Hawaii

**11772–94      Partition and disappearance of Poland**

Following the Polish civil war under Russia's restive puppet Poniatowski, Frederick the Great of Prussia proposed that Prussia, Russia, and Austria annex parts of Poland. Russia, though she had hoped to take *all* of Poland, was occupied with the Pugachëv Rebellion, and therefore compelled to agree. Thus, in 11772, Frederick took Polish Prussia, connecting his Prussian domains with Brandenburg. Russia got most of Belorussia. This "First Partition" left Poland pretty much confined to its "ethnographic frontiers." Poland undertook serious reforms, acceptable to Austria and Prussia but not to Russia, which saw them as paving the way to a Polish resurgence and intervened militarily in [11793]. Poland, in this "Second Partition", had to cede Lithuania and more of Belorussia to Russia, and to subordinate her military and her foreign policy to Russia's. The Polish upper classes under Kosciuscko began a revolt in 11794, which failed due to lack of popular support—the Poles had no more love for their nobility than did the Russians. The remainder of Poland was partitioned between the three powers, Russia taking Courland.

**11775            Volta invents electric battery**

**The American Revolution, and related conflicts of Britain against France, Spain, and the Netherlands.**

V. relevant chapters of Ayling's *Fox*, and *EB11* s.v. "Guilford, Barons and Earls of" for Frederick North, 2nd Earl of Guilford, best known as Lord North.

In the mid-1700s, the geographic, economic, and demographic growth of the British Empire outstripped the governing abilities of that empire's institutions. (Cf. the Roman Republic.) The problems were aggravated by an ineptly meddling, if well-meaning, monarch: George III, unlike his German-born Hanoverian predecessors who ruled in conjunction with the Whigs, sought to rule directly (cf. the consequences of the direct rule of the inept Wilhelm II), and to put an end to faction politics and corruption. (It is perhaps significant that George III was the grandson, not the son, of his predecessor: he was very conscious of a gap.) He appointed his own men to ministries, regardless of parliamentary support, and it was perhaps inevitable that he had few able men about him in such circumstances. As to political principles, in general, he was behind the times, his opponents ahead of them. As to political practice, all sides were filthy, and jobbery had always ruled; the King, to his distaste, found that he had to resort to jobbery to build his own base in Parliament.

The result was a tumultuous demand for political representation by the whole of the vastly expanded productive classes—the fundamental issue of the period. The American Revolution was very much of a piece with this movement; the only differences were secondary issues: the logistical consequences of geographic separation and the institutional consequences of the growth of substantial settlements away from the ancient social and institutional web of the home islands. These differences made for constitutional issues that were more clear-cut than in the British Isles: in the American colonies, there was not even a pretext of local representation in Parliament—even the rotten system of representation against which the home islands were protesting was denied the colonists, and the "virtual representation" preached by defenders of the British establishment, whatever its appeal within the home island, was patent nonsense when stretched across an ocean. The issue for the colonies was the supremacy of the Parliament at London, not, until the final break came, the sovereignty of the King. The desired solution (cf. Wood, *TAR* 39; note the language of the declaration by the Stamp Act Congress of 1765 there cited, which suggests that colonial representation in the Parliament at London was considered unfeasible; Buchanan *TRVF* 19 gives a statement from the First Continental Congress using very similar language) was for legislative authority over the colonies, under the King, to be vested in the several colonial legislatures. The American revolutionaries, like the advocates of reform in the British Isles, spoke in the name of, not against, English political traditions and institutions. (I think that Wood, *TAR* 58, 66, like many others, gives too much weight to the differences in perception of those institutions between the reformers and the establishment, speaking as if there was a definite English constitution to which the establishment adhered and from which the reformers varied. There was no such thing in English-speaking lands until 1787. The differences are best seen, less as legitimate theoretical differences than as differences between the doctrines of political insiders and those of outsiders; the former are inherently apt to be abusive of the latter, while the latter, in addition to being thus chronically neglected and needful of assertion, can, on the assumption that the sole foundation of government is the consent of the governed, claim a certain priority.) The status of the colonists as Englishmen was first impugned, with paternalistic intent, by King and Parliament. Only later, under the duress of intolerable circumstances, was it impugned, with revolutionary intent, by the colonists.

When the issue came to independence, geography dictated that the British were at an inherent disadvantage, fighting in a vast and hostile territory an ocean away from their sources of supply, against a ubiquitous, if often undisciplined, local guerilla (of militia serving close to home on a more or less ad hoc basis, shading into a guerrilla of men who served when they were able and were civilians in the intervals) that formed the matrix for the more regular engagements of the Continental forces, deciding issues in that majority of the colonial territory where the Continentals were not active. (The Tory guerilla, whatever its numerical proportions, could not withstand the rebels: the colonial Tories had been stripped of their institutional organizing framework, were separated from the British regular forces except where, as in the New York City hinterland throughout the war, these controlled the countryside in which they acted, and were despised and abused by those forces where they met.) The British could win some battles, but they never had the resources to hold the countryside. Their situation was aggravated by the inept government of George III, which was diplomatically ineffectual with regard to the Americans, and sent many inadequate generals into the field. (The military effectiveness of the able Howe brothers was impaired by their mandate, seconded by their own long-held inclinations, to leave room for reconciliation. Wood, *TAR*, 78ff, Buchanan *TRVF* 4, 16ff.) When the durability of the American resistance became clear (durability, not promise of ultimate success, was the only issue here) France and Spain took advantage of the situation, and challenged Britain around the world, making it impossible (if it ever was possible) for Britain to devote adequate resources to suppressing the American rebellion. The British complain that America, in the Revolution and in 1812, took advantage of Britain's "Second Hun-

dred Years' War" with France. An American might ask why the British, faced with such a danger, insisted on making enemies of their kin. (The question was asked in Parliament, by Fox.)

Buchanan's epilogue (xx'd) is interesting for the precis of strategy, esp. pp. 318–19 on revolutionary armies, and as a summary of Washington as a commander. On military history, see the bibliography in Wood, *TAR*, p. 171.

The American colonies, consisting as they did largely of religious and political dissidents, had long evidenced tendencies toward independence. (Massachusetts, for example, had treated with its French and Indian neighbors almost as a sovereign power.) Even before the Seven Years War, there were those who thought that the colonies would revolt if the threat of French Canada were to be removed.

Trade and economic development were also issues: the colonies resented the mercantilistic policies of the home country (just as India resented those of Belait). British exports to the colonies had quadrupled between the 11720s and 11760s (Wulf, *Brother Gardeners*, obiter), so there were powerful interests in corrupt England in favor of mercantilism.

The Revolution begins after a period of increasing tension between England and the colonies, over the colonies' right to have input into the laws governing their own trade and conduct. The ruling factions in England consistently and shortsightedly denied any such right, though many others in England were sympathetic to the colonists' cause and there was a strong movement in England itself for reform and democratization of England's home government. But laws governing the American colonies were made in England for the benefit of the mother country, where necessary at the expense of the colonies, which felt weakened in the face of their French and Indian enemies, and deprived even of the rights that a British subject would have enjoyed in England. (The example of England's treatment of Ireland was also very much in the minds of Americans—and of their English rulers. Britain's treatment of India—v. 1763—, on the Raj, richly corroborates the objections of the American colonists, whether or not the similarities were manifest at the time, and whether or not the colonists were conscious of those similarities.)

For various reasons, clearly shown in Wood, *TAR*, Boston became the center of American resistance and the focus of British measures against colonial resistance, so that it was there that the shooting phase of the war of the rebellion began.

11774

3/31–6/22 Parliament passes Coercive and Quebec Acts. In response to the Boston Tea Party, Parliament closes the port of Boston. Movement to boycott English goods.

Lord Dunmore's War: Dunmore is royal governor of Virginia; the colony drives the Shawnees (those not previously expelled by the Iroquois) out of Kentucky.

In response to an act of protest by the Virginia House of Burgesses (a "day of fasting, humiliation, and prayer"), Lord Dunmore dissolves that body, which then meets elsewhere (in an extraordinary capacity, choosing a "moderator" rather than the regular "speaker") to consider actions, including boycotts, and call for a general congress of the colonies. The members later go to the hustings to gather the sense of their constituents, and find that the generality of their constituents are, if anything, more forward in resistance than the Burgesses.

9/5–10/26 First Continental Congress, in Philadelphia, a result of the obvious need for unity in the face of British measures against individual colonies.

First Continental Congress sends "Declaration of Rights and Grievances" to George III.

11775

4/19 Battles of Lexington and Concord.

5/8 Nathanael Greene promoted from private to brigadier general by the R.I. legislature. Greene had had no combat experience, but was an "avid student of the art of war" (Buchanan). He worked out.

5/10 Americans take Fort Ticonderoga (on L. Champlain).

5/10 Second Continental Congress convenes, begins to raise army.

5/23 Convention at Boonesborough, Kentucky of representatives from three settlements (all made that year, one led by Boone under the proprietorship of one Henderson), establishing defensive cooperation and governmental mechanisms. (Boone moves, inter alia, laws for the regulation of hunting—the wasteful slaughter of game was already recognized as depleting the country almost as fast as it was settled.) The proprietors try to keep on the good side of both the Colonial and British governments. (The governmental moves were ultimately abortive, as the claims of the proprietors did not hold.) In September, the organized Kentucky colonists sent an envoy to the Continental Congress, asking for a representative to be seated there. But they were rebuffed, as the Congress was not ready to recognize moves made in clear violation of Crown decrees against settlement, not to mention claims of the existing colonies to the same land. (Some, like Jefferson and Silas Deane, were also opposed on principle to settlers being dependent on proprietors of large tracts, and Virginia ultimately acted against the proprietors' claims.) Later in the year, many of

- the settlers in Kentucky returned to the east, because of well-founded fears that the British would incite the Indians against the colonists.
- 6/15 Washington appointed commander-in-chief.
- 6/17 Battle of Bunker Hill.
- 7/26 Franklin becomes Postmaster General
- Dec. Richard, Lord Howe, made commander-in-chief of British naval forces, North America.
- 12/31 Battle of Quebec: Americans defeated.
- 1/10 Paine publishes *Common Sense*.
- 3/17 British evacuate Boston. Washington leaves, 4/4.
- 4/13 Washington arrives in New York City. Charles Lee had been sent there in January to organize its defence. Lee left for the South in March. Buchanan, *TRVF* 14, notes the extremely problematic task of defending New York without control of the sea. Washington assigns the defense of Brooklyn Heights to Greene.
- Possession of New York was seen as vital by both sides. The Americans (with extensive participation of the civilian population) built extensive works, including Forts Washington and Constitution (later Ft. Lee).
- 6/28 British attack Ft. Moultrie at Charleston.
- 6/29 British fleet under the Howes (left Halifax, 6/10) arrives off Sandy Hook.
- 7/2 British land on Staten island, which they occupy with virtually no resistance.
- 7/4 Declaration of Independence.
- 7/12 Wm. Howe sends a flotilla upriver to threaten rebel communications and supply lines. The flotilla and American batteries exchange fire; New York City is bombarded. The flotilla reaches the Tappan Zee; opposed by local militia, they do little damage, but they constitute a threat of conjunction with local loyalists, and occupation of the Hudson Highlands.
- 7/13–14 Negotiation feelers by Lord Howe; he has little to offer.
- 8/22 British begin landing forces at Gravesend Bay.
- 8/20 Greene, gravely ill, is replaced by Sullivan, who in turn is replaced, on 8/24, on grounds of seniority, by Israel Putnam.
- 8/27 et seq. **Battle of Long Island.** Continental withdrawal from New York follows.

The American troops were painfully undisciplined and heavily outnumbered. American entrenchments, running from the Wallabout to the Gowanus, defended the Brooklyn positions that controlled strategic waterways. In front of these entrenchments, the Americans occupied the "Heights of Grana". The British (including Hessian forces) held the Americans on the heights, while surprising them with a flanking maneuver from the British right, launched the night before the battle through the undefended Jamaica Pass. At dawn, the flanking column moved through the pass and behind the heights, toward Bedford and Brooklyn.

With the Heights of Grana enveloped, the British forces attacked from the south, and the American left and center was routed. On the right, Maryland and Delaware troops, "the best-trained and -disciplined American force" (Buchanan), under Lord Stirling (sic) were caught on the east side of Gowanus Creek, with British behind them to the north (under Cornwallis) and before them to the south. Stirling sent the main body of his troops to safety across the creek. To cover their retreat, he took about half of Col. Wm. Smallwood's Maryland regiment to attack Cornwallis's force. He renewed his attack "five or six several times" with some success, but when Cornwallis was reinforced, the Marylanders, "facing overwhelming numbers, broke and ran for safety" (Buchanan).

The "fortifications on the high ground in Brooklyn" remained in American hands, and Washington was there. (Buchanan; he does not state expressly that the entrenchments from the Wallabout to the Gowanus were crossed; his later description suggests that the Americans fell back to these lines before their defeat.) Though Howe believed he could take the Brooklyn fortifications by assault, and his troops were eager to do so, he held back, judging that this was not worth the cost in men, since he was sure they could be taken cheaply "by regular approaches" (i.e., by siege).

Howe prepared the siege, while Washington brought in reinforcements. There were hot exchanges of fire between the opposing lines. Howe's attempts to send ships into the East River behind the Brooklyn Heights positions were for the present frustrated by north winds, but Washington considered Brooklyn threatened and vulnerable because of the state and situation of his entrenchments, and determined to withdraw on the night of 8/29. The nighttime withdrawal over the East River to Manhattan was a difficult maneuver that had to be executed in complete silence

- by the exhausted troops, lest the British take notice and attack the troops on the river or the reduced forces still on land. As each regiment left the lines, those remaining spread out silently to take their place. The withdrawal was ably executed, thanks in part to disciplined Massachusetts regiments composed of mariners. The last regiments, leaving after sunup, were covered by a providential thick fog. The British discovered the withdrawal and advanced just in time to fire on the last of the boats disappearing into the mist. The preservation of the 9000 troops from Long island was a major factor in the American's ability to continue the war. Once again, Wm. Howe did not pursue his retreating opponents.
- 9/11–16 Richd. Howe meets with Franklin, John Adams, and Edward Rutledge on Staten Island. Howe still cannot recognize the colonies as independent states, and can offer nothing more than pardons and the promise of some accommodation after the colonies have submitted.
- Fighting in and around Manhattan.** American forces were strung out the length of Manhattan. Though New York was vulnerable to being flanked by water, Washington at first meant to defend the city, believing this to be the intent and instruction of Congress. This impression was corrected by a message from Congress, and Washington prepared to withdraw [from the city proper, at least—he had considered defending Forts Washington and Lee, and Kingsbridge], taking with him important stores. But the British renewed the offensive on 9/15, with an amphibious assault on the exiguous American fortifications at Kips Bay, launched from across the river in Bushwick, under cover of fire from British warships. The defenders fled ignominiously, as did their reinforcements arriving from Corlear's Hook—under the eyes of an infuriated Washington, who was unable to rally them. Once in Manhattan, the British awaited reinforcements before advancing, and failed to extend themselves across the island, allowing Putnam to escape north with the 5000 troops in New York City.
- Washington entrenches on Harlem Heights. (His headquarters was the present-day Morris-Jumel mansion.) The British control the rest of Manhattan. On 9/16, a rash British foray gave the Americans a chance to recoup some honor, defeating the British in the open by some smart maneuvering under Washington's direction, in what has been, with some exaggeration, called "the Battle of Harlem Heights". Wm. Howe sets his troops to fortifying a line at about the level of present-day 91st Street.
- 10/12 The British begin a flanking offensive against Washington, sending a fleet through Hell Gate and landing 6500 troops on Throg's Neck, then more of an island, with a bridge connecting it to the mainland across a neck that was fordable at low tide. American troops destroyed the bridge before the British could reach it, raising fortifications and defending the shore with hot rifle fire.
- 10/16 Washington, in council with, inter alios, Charles Lee (called back from the south by Congress), decided to withdraw to the hills above White Plains, but to hold Ft. Washington as long as possible.
- 10/18–22 **Retreat from Manhattan.** The retreat began took some time because of the lack of beasts of burden. Ft. Washington remained occupied. Also on 10/18, Howe moved his troops by water from Throg's Neck to Pell's Point (in the present-day Pelham Bay Park). A Massachusetts brigade under John Glover made good use of the many stone walls in the area, luring the British forces marching inland into deadly fire from behind the ready-made ramparts. Glover withdrew in good order when a flanking maneuver threatened to put an end to his activities. Howe sat down once again to await reinforcements, but arrived before Washington's forces at White Plains on 10/28.
- 10/28 **Battle of White Plains.** Arriving at White Plains, Howe promptly attacked a hill commanding Washington's position, driving the occupying Americans out of the close terrain, not without difficulty, to gain victory in the Battle of White Plains. Howe did not follow up, and Washington withdrew five miles to the north on [11/1].
- 11/5 Howe withdrew to Manhattan on 11/5. Washington sent part of his force west across the Hudson to oppose any British attack on New Jersey, while part went north to Peekskill to protect the Hudson Highlands, with another force remaining [in lower Westchester] under Lee. Howe meanwhile moved against Ft. Washington. 2900 Continentals were holding the fort on the instructions of Congress, despite the fact that Ft. Washington and Lee could not prevent the British from sailing upriver. Washington left Greene, in command at Ft. Lee, at liberty to evacuate, but Greene did not do so, believing the fort could be easily enough held. But Ft. Lee had no water supply, and options for digging in were limited by the thinness of the soil over granite bedrock.
- 11/15 Washington, anxious about Ft. Washington, remained in the area of Ft. Lee, and was about to embark for the Manhattan fort on 11/15, when Howe's attack began with an attempt to storm the fort. Advancing successfully upwards over very difficult terrain, the British drove the defenders

within the walls. The fort then surrendered—one of the worst losses of the war. Most of the captured Americans were to die in prison.

11/19–22 **British take Ft. Lee.** On 11/19, 5000 British troops marched north from Manhattan to present-day Yonkers, whence they were ferried across the river. On landing (probably at Lower Closter Landing, about 5.5 miles north of Ft. Lee), they marched unopposed to the top of the Palisades. Ft. Lee, useless now that Ft. Washington was in British hands, was being laboriously emptied of stores. On hearing of the British threat, Greene ordered evacuation towards Hackensack, where Washington was. Important supplies were left behind. The British plundered the countryside, apparently indiscriminately, striking Whig and Tory alike.

Washington ordered Lee to bring his troops from Westchester into New Jersey. Lee refused, ordering Heath's Hudson Highlands troops, over whom he held no authority, to New Jersey in his stead. Heath refused, and informed Washington of the matter. Washington renewed his orders to Lee, who acquiesced but did not comply, while using language that implicitly questioned his subordination to Washington. Lee moved his troops to Peekskill, where Heath was located, there continuing his buffoonery until finally crossing to the west bank for New Jersey on 12/2. Lee's actions made it clear that he was scheming quite brazenly to supplant Washington. Congress, meanwhile, had ordered reinforcements for Washington, who retreated in good order towards Newark.

11/23 Washington reaches Newark on 11/23. Cornwallis, commanding in New Jersey, had been ordered by Howe not to press the rebels. Howe detached 6000 troops under Clinton to attack Newport, R.I.—“a sideshow”, per Buchanan: Howe could have sent those troops to cut off Washington's retreat.

11/28 Cornwallis arrives before Newark, and Washington retreats to New Brunswick, arriving on the 29th. North Jersey suffers greatly under the depredations of both armies.

12/1–2 Washington leaves New Brunswick ahead of the advancing British. Drained by expiring enlistments, Washington's force is down to 3000 men, who were unable to keep all their supplies with them for want of carriage. They reach Trenton on 12/2, crossing to Pennsylvania a few days later.

12/7–13 Washington, his remaining supplies safely across the Delaware, advances toward Princeton on 12/7, but retreats again across the river when British troops are sighted. Lee, meanwhile, had been advancing through New Jersey, harrying the British rear while finding continual excuses for not complying with Washington's orders to join him. Lee indulged the caprice of dallying at a tavern at Basking Ridge, away from his force. Chance gave the British word of his location, and he was captured on 12/13. For a time this was regarded by many on both sides as a grave blow to the Americans. Washington took what measures he could to prevent the British from crossing the Delaware and advancing on Philadelphia: guarding fords and leaving no boats on the east bank.

12/8 British take Newport, R.I. Clinton's troops remained there for three years, to no purpose whatever. (For a summary of Howe's strategy, see Buchanan, p. 138.)

12/12 Congress withdraws to Baltimore.

12/14 Howe, having joined Cornwallis in New Jersey, on 12/14 ordered the army into scattered winter quarters. Washington planned an offensive stroke, badly needed for morale. He also requested and received from Congress (which had withdrawn to Baltimore on 12/12) increased powers to augment and reorganize the army.

12/25–6 Battle of Trenton. On 12/25, in a snowstorm, Washington took a picked force across the ice-clogged Delaware to attack the force of Hessians at Trenton. These, despising their enemies and believing the winter made them safe, had neglected even basic precautions. Washington's well-coordinated attack surprised the incoherently-led Hessians at dawn, and captured the town. Higginbotham calls Trenton Washington's “only really brilliant stroke of war”. The victory was the needed tonic for American morale, and a shock to the British. Washington wisely withdrew back across the Delaware the same day: the two supporting forces he had ordered across elsewhere had failed to cross, and the large supply of liquor in Trenton was a threat to the fighting abilities of the victors.

12/29–1/1 Washington crossed the Delaware again during 12/29–1/1, hearing that the Hessians were in retreat from south Jersey, intending to campaign against the British in New Jersey. But the latter responded vigorously, advancing on Trenton and pinning Washington against the Delaware.

December Virginia organizes Kentucky as a county of that state.

11777

1/3–4 Washington defeats British at Princeton. In a maneuver reminiscent of the withdrawal from Brooklyn, Washington slipped out silently at night and advanced toward Princeton, meeting and defeating a British force that happened to be marching from Princeton to Trenton.

The British retreated to New Brunswick, to protect valuable stores there, and to South Amboy, abandoning most of the rest of New Jersey. Washington set in motion a program of harassment and potential threats to New York City that kept the British on edge, in bounds, and, outside of New York City, in very bad shape as to supplies, at least at first. (Later at least some of the British troops in Jersey were well supplied from New York.) Washington's troops had no such font of supplies—Continental supply mechanisms were a sick joke, and remained so throughout the war, the responsibility abdicated by Congress and left to the devices of the small-minded and squabbling several states. Washington also had to deal with a major smallpox epidemic, which he did by a courageous and thorough program of inoculation, then a highly controversial procedure that sometimes incited mob violence.

5/29 Washington moves his forces, now considerably augmented by new Continental recruits, 15 miles south, to Middlebrook. Howe's inactivity through the spring had puzzled all on both sides. It is expected on both sides that he will move against Philadelphia, either by land or by water.

6/12 Howe led the Jersey troops, with superior numbers, against the camp at Middlebrook, but sat down when Washington refused to move from his strong position. Howe, continually harassed, then retreated to Amboy.

6/21 Burgoyne begins his advance south, embarking on Lake Champlain.

6/26 Washington had come down to open country, and Howe turned back on 6/26 in an attempt to surprise him. Washington evaded Howe, not without some engagement, and on 6/28 Howe retreated to Amboy and thence to Staten Island.

7/8 Vermont abolishes slavery.

7/19 Howe embarks from Staten Island. To the consternation of his own side, he announces his intention of heading for Chesapeake Bay, instead of for the Delaware River, close to Philadelphia and open to the British. Washington, meanwhile, cannot be sure that Howe is not making a feint before going up the Hudson to join Burgoyne. Washington first moves north toward the Ramapos, then south to the Delaware, where he awaits news of Howe.

8/16 Battle of Bennington.

8/22 News comes of Howe's entry into Chesapeake Bay, and Washington marches for Philadelphia, arriving on 8/24, parading, and moving on to Wilmington. Howe lands at Head of Elk on 8/25 and advances north, harassed by militia and closely watched by Washington. The Americans took up position along Brandywine Creek, awaiting battle to block the advance on Philadelphia.

9/11 Battle of Brandywine (Pennsylvania). The British had superior intelligence of the land, and on 9/11, attacked Washington's left, crossing at fords of which Washington was unaware, while sending a large column of Hessians to feint at the fords which the Americans were defending. Thanks to faulty intelligence of British movements, and failure to reconnoitre adequately, Washington took the feint for the main assault and the flanking movement for a feint. When the situation became clear to Washington, an American force was sent to oppose the British flanking force. This American force held stoutly for a time against superior numbers, then broke just as Washington came up with reinforcements, having left Wayne to face the Hessians. The reinforcements held the British and covered the retreat of their predecessors. The Hessians defeated Wayne and crossed the Brandywine, threatening the American rear.

The Americans retreated to Chester, PA, then on to Germantown, about six miles northwest of Philadelphia. The British were too tired to follow immediately, and Howe in fact sat down for four days. "[p/u Buchanan 254 para 2]"

9/16–10/4 Howe and Washington, both looking for battle, faced each other on 9/16, in a miscellaneous skirmishing of advance units sometimes referred to as "the Battle of the Clouds", which fizzled out under a violent, drenching, powder-wetting thunderstorm that saw jägers engaging Americans with hunting swords. The Americans, only recently introduced to bayonets, could not face cold steel.

Washington retreated across the Schuylkill, and Howe sat down again. Wayne and Maxwell recrossed on the right bank of the Schuylkill to harass the British, who responded with a surprise attack on Wayne with unloaded guns, "the mission to be accomplished with the bayonet", supplemented by short swords. Wayne was routed, but most of his troops escaped.

Howe marches up the right bank of the Schuylkill, apparently threatening Reading, 50 miles upriver from Philadelphia. This leads Washington to precede him on the left bank, whereupon Howe crosses behind Washington and advances on Philadelphia, an objective of little military significance. Washington and his staff see no value in attempting to engage his rear, especially given the exhausted and deprived condition of the American troops.

- Congress adjourns to Lancaster. Washington took measures to control the Delaware south of Philadelphia, precluding naval aid to Howe's land forces.
- 9/19 Battle of Freeman's Farm (First Battle of Saratoga), New York.
- 10/4 Washington defeated at Germantown. On 10/4, Washington took advantage of reliable morning fog for an attack on Howe's main force, which was stationed at Germantown, six miles northwest of Philadelphia. As at Trenton, but with many more troops (11,000), the attack followed a complex and tightly coordinated night march. Howe had 7000 or 8000 troops, in a highly defensible position. The coordination of the attackers broke down, and the Americans retreated, after putting the British to flight at some points, sustaining very heavy fighting, and giving as good account of themselves in many ways. Their spirit and resilience after so many defeats made a great impression on both sides.
- Washington retires toward Valley Forge to encamp for winter. (Howe in Philadelphia.)
- 10/7 Battle of Bemis Heights (Second Battle of Saratoga), New York.
- 10/17 Burgoyne surrenders to Gates at Saratoga. Victory gives Continental cause credibility with potential European allies, particularly France.
- 11/15 Articles of Confederation approved by Congress, sent to states for ratification. (Ratified 3/1/81.)
- 11/15–21 The troops placed by Washington in forts guarding the Delaware River fought heavy battles on 11/15–16 and 11/21, before abandoning the river to the British.
- 12/19 Washington encamps at Valley Forge, about twenty miles northwest of Philadelphia. What plagued the army during that famous winter was abysmal Continental logistics—food, clothing, and supplies enough existed, they just weren't gotten to the army. Buchanan points out that "a European regular army of the time would not have put up with such conditions".
- "The years between the British assault on New York in the summer of 1776 and the emergence of the army from Valley Forge in the early summer of 1778 were the critical years of the Revolution." (Buchanan.)
- 11778
- 2/24 Von Steuben arrives at Valley Forge. [P/u Buchanan p. 304 para 3, also extracts from paras 2 & 4.]
- Greene is engaged in reforming American logistics.
- 2/6 Treaty of Alliance with France.
- 5/29 Notorious massacre at the Waxhaws (SC, present-day Buford), just under the NC border, then residence of little Andrew Jackson), by Tarleton's British Legion, which there overtook retreating Continentals, under Colonel Abraham Buford, and the retreating government of South Carolina. W: "Buford refused an initial demand to surrender ("Tarleton, in violation of accepted rules of war, had continued his march while the parley took place."), but when his men were attacked by Tarleton's cavalry, many threw down their arms to surrender. Buford apparently attempted to surrender. However, the British commanding officer Tarleton was shot at during the truce, causing his horse to fall and trap him. Loyalists and British troops were outraged at the breaking of the truce in this manner and proceeded to fall on the rebels." "Equally valid accounts of the battle by soldiers from both sides describe Tarleton as having no part in ordering a massacre as he had been trapped under his horse, and when freed immediately ordered thorough medical treatment of American prisoners and wounded." "After the battle, the wounded were treated at nearby churches by the congregants, one of whom was a young Andrew Jackson."
- 6/28 Battle of Monmouth (New Jersey). The British, having evacuated Philadelphia, were withdrawing to New York City. "Monmouth was a long, hotly-contested battle that is best described as a draw." (Buchanan.) American troops acquitted themselves well, showing the benefits of Von Steuben's training. American artillery was also important. This was the first major battle since Germantown, and the last in the north. The focus of the war shifts to the southern colonies; the next major theater is the Carolinas ([11780]–81).
- July–Aug. American siege of Newport.
- 9/7 French take island of Dominica
- 12/29 British capture Savannah.
- Continentalists under Clark defeat British at Forts Mifflin and Mifflin, prevail in the West. (-'79)
- 11779
- May British coastal raids on Virginia.
- May French and Spanish besiege Gibraltar. The siege continues throughout the war, Britain retains Gibraltar.
- 5/8 Spain declares war on England.
- July–Aug Americans besiege British in Castine, Massachusetts (now Maine)

- 8/29–30 Battle of Newtown, New York  
 Sep–Oct Americans besiege Savannah.
- 11779–80 The Continental currency collapses; this is “considered by Washington to be the most serious crisis of the war” (Buchanan). France is also in a financial crisis. The efforts of Robert Morris as Superintendent of Finance saw America through the crisis.
- 11780 Colonial (U.S.) population estimated at 2,780,400.  
 Feb. British seige of Charleston begins.  
 3/14 Spain takes Mobile, in [West] Florida.  
 5/12 British take Charleston.  
 July French forces arrive in Newport.  
 8/16 Battle of Camden, South Carolina. Gates is defeated by Cornwallis; he and the militia flee, leaving the regulars under DeKalb to face superior British forces. DeKalb is killed, his regulars acquit themselves well. Gates is disgraced.  
 (Note on Tarleton, for want of a better place: his “British Legion” in fact consisted mainly of loyalists from New York and Pennsylvania.)  
 (9/6 Battle of Pollimore, India  
 9/25 Benedict Arnold’s plot exposed; he flees to the British. He had been spying for the British for over a year.  
 10/7 Battle of King’s Mountain, North Carolina.  
 10/7 Cornwallis retreats from North Carolina.  
 12/20 Britain declares war on the Dutch republic, beginning the Fourth Anglo-Dutch War (11780–4). (See 11783 for results.)
- 11781 1/2 Amid bitter controversy between the states over western land claims, Virginia offers to cede to Congress its entire claims northwest of the Ohio River—the “Old Northwest” territory, which extended to the Mississippi and approximately the border of modern Canada, including Minnesota. Acceptance was delayed by Virginia’s stipulation that claims based on private purchases from Indians be disallowed, and by the resulting lobbying by the land companies that had made such purchases, largitione palam diffusa in the form of stock. Congress accepts the cession on 9/13/83, ten days after the treaty ending the war was signed. (Kukla, *PH* 229).  
 1/17 Battle of Cowpens, South Carolina. “Daniel Morgan’s tactical masterpiece of the Revolutionary War.” (Buchanan.) Tarleton lost almost his entire [cavalry] force. Misunderstanding an order, the Americans begin to retreat, in well-drilled order. Halted by Morgan, they turned, fired a volley at the British charging in to take advantage of the retreat, and routed the British with a bayonet charge.  
 2/3 French take St. Eustatius, in the West Indies.  
 3/1 Articles of Confederation ratified.  
 3/15 Battle of Guilford Court House (NC). Greene leaves the field to Cornwallis, but the Americans again fought well, and “Cornwallis’s Pyrrhic victory ... completed the ruin of [his] army (Buchanan), which then left the region to the Americans.  
 5/9 Pensacola taken. (By whom?)  
 7/6 Battle of Greenspring Farm, Virginia.  
 9/30 Siege of Yorktown begins.  
 10/19 Surrender of Cornwallis at Yorktown ends the military conflict between the United States and Great Britain.  
 Nov. West Indies: St. Eustatius, St. Martin, St. Bartholomew taken. (By whom?)  
 Worldwide: 7/1: Battle of Porto Novo, India. 8/27: Battle of Polilur, India. 9/27: Battle of Sholingur, India.
- 11782 European conflicts in ‘82 make the British more amenable to peace.  
 Feb. Minorca taken. (By whom?)  
 2/13 French take St. Kitts.  
 4/12 Battle of the Saintes, West Indies.
- 11783 6/13 Battle of Cuddalore, India.  
 9/3 Treaty of Paris, ending the war and recognizing the independence of the United States. The Treaty gives Minorca and Florida—both previously held by England—to Spain, and Tobago and Senegal to France. Britain retains Gibraltar.

As a result of the Fourth Anglo-Dutch War (11780–4), England takes over most of the Dutch overseas empire, particularly Ceylon and large possessions in India. British forces leave New York City.

The American Revolution was a great blow to England, according to some historians the worst in her history. (Think what the British Empire would have been if the U.S. hadn't left.) It was a shock to monarchical governments around the world, and it was a correspondingly great inspiration to democratic movements. It is unfashionable to recall this today, especially in Europe, but the American Revolution was regarded everywhere as a world-shaking event when it happened, and for a long time after.

As of 11783, the territory of the United States consists of its present territory east of the Mississippi, with the exception of Florida and the strip west from the Florida Panhandle to the Mississippi (Spanish; Spain also claimed southern Alabama and Mississippi); northern Maine was disputed by the British; ideas about the territory around the headwaters of the Mississippi were vague.

#### 11780s–94 **Early Indian wars of the U.S., early colonization of the West; far western issues and the Mississippi**

Indian attacks were driven by supported and advice from by the British (based mainly in Detroit; the support included artillery for use against forts) and driven also by the obvious defensive needs of the Indians. Fighting would be severe on the frontier from 1775 on, and continue long after fighting ended in the east, long after the treaty ending the war—until the battle of Fallen Timbers in August 1794, where the victory went to Anthony Wayne. This defeat marked the end of British support for the Indians, which was confirmed by treaty in November of that year. (See Brown, *F*, ch. 9)

“The lower Cherokee and a coalition of fugitive blacks and Shawnee and others resisted American sovereignty over the Tennessee valley in the Chickamauga Wars until 1794. The same thing happened in the northern Ohio country, where the Shawnee, Miami, Delaware, Wyandotte, and others under the leadership of Little Turtle denied American claims ... until defeated at the Battle of Fallen Timbers in 1794. A young Shawnee soldier named Tecumseh saw his first action at that battle.” (Schneider, *OMR*.)

Kentucky was the spearhead of colonization, by settlers coming from Virginia and North Carolina via the Cumberland Gap (a formation similar to the Delaware Water Gap), and also down the Ohio from Pennsylvania. The country north of the Ohio long remained a stronghold for Indians (notably Shawnees) driven from Kentucky.

The population of Kentucky grew from about 200 in 1776 to 30,000 in 1783, and 74,000 in 1790, Kentucky was admitted to statehood in 1792.

Many who moved West had lost what little they had while serving in the revolution (militia or regular army), and, unlike wealthier folk, had found no relief from the weak and unfinanced government, which they accordingly despised. This was a factor in Spain's attempt to gain influence with the western settlements. Many in the West had no confidence in the new constitutional experiment, and their votes had kept North Carolina from ratifying it. Spain, on the other hand, had carrots and sticks: it controlled the Creeks, and the export trade of the Mississippi watershed (and trade was sometimes permitted to obliging westerners despite official bans by Spain).

11784 Spain closes the port of New Orleans to American trade down the Mississippi. This sparks friction between Southern and Western states, and Northern states, hard-hit by British trade restrictions, that were willing to sign away the navigation of the Mississippi in exchange for a treaty allowing them profitable trade (notably for fish) with Spanish lands. The northeast also opposed western settlement because it would be a drain on the population of the northeast. (304: Per Kukla, Spain's real interest was in keeping the Americans away from Spanish territory.) In 1785–6, there was much talk in the northern states, especially New England, of secession. (Kukla, 298.)

#### 11780s **Overview**

Blocked by trade restrictions imposed by Britain, France, and Spain, American merchants and shippers turned to China and the Pacific. Much of what they sold to China came from the Pacific and its shores. Notable were furs from the North America's Pacific Northwest and from the sealing trade, and, from Hawaii, sandalwood and, later, sugar. Hawaii's produce was also important, supplying the whaling ships and the lucrative trade to the California of the Gold Rush.

11780–831 Carl von Clausewitz

11783 Steamboat: Claude de Jouffroy d'Abbans, France; also James Rumsey, U.S., '87; John Fitch, U.S., '88. (Fulton's was the first commercially successful steamboat.)  
Hydrogen first used to raise balloons.

11783–859 Washington Irving

- 11784 Wesley's *Deed of Declaration*.
- 11785 Steam engine perfected, James Watt, England (For earlier machines, see 11765, and *T2001* p. 578.) One challenge in the development of such machinery was the difficulty of machining parts with sufficient precision.
- 11785 Franklin invents bifocals
- 11786 August: Shay's Rebellion, western Massachusetts. Kukla, *Patrick Henry 275*: "Contrary to myths spun by partisan observers then and since, the overwhelming majority of leaders and participants in that revolt were not debtors but property-owning farmers incensed by a rapacious scheme of taxation foisted upon the Bay State's rural population." (Also Sismondo, *America Walks Into a Bar*.) Kukla contrasts Virginia's avoidance of a similar outcome by a fairer tax regimen endorsed by Henry.  
First ascent of Mont Blanc.
- 11786–867 Alexander Bryan Johnson
- 11787 Northwest Ordinance enacted by Congress
- 11789 *Bounty* mutiny  
Rev. Elijah Craig, of Kentucky, is credited with inventing bourbon whiskey in this year. The distilling of whiskey in Kentucky took off rapidly over the next two decades, and whiskey—with bourbon dominant—replaced rum as the country's characteristic hard liquor. (Bourbon County in Kentucky, like Louisville and some other localities, was named for the royal French allies of the American states.)

11781 **Kritik der reinen Vernunft**

11784–86 **“Mini Ice Age” caused by the catastrophic eruption of Laki volcano in Iceland.**

The eruption killed about one quarter of Iceland’s population, and destroyed many records.

11787 **Constitutional Convention**

The thirteen original states ratify the Constitution between December, 11787 and May, 11790 (Rhode Island).

11788–99 **The French Revolution**

Its wealth, power, and cultural brilliance notwithstanding, France had developed into a repressive and badly mismanaged police state in which the poor often lived under inhuman conditions. (The resemblances between France and Russia are often striking.) It boiled over in 11789. The revolution went through a number of different stages as various revolutionary factions, some moderate, some extremist and bloodthirsty, succeeded one another in power, fighting each other as well as the old regime. The rulers of much of the rest of Europe were even more frightened by the French Revolution than they were by the American, because it was closer to home and more extreme. They responded by making war on France, which united the French as nothing else could have done. Though France is defeated by the British at sea, the French land armies generally triumph over their enemies, throwing them back from France and going on to conquer Belgium and parts of Germany and Italy.

For a detailed chronology, see appendix to Carpentier, *Histoire de France*.

11788 Parlement presents grievances to Louis XVI, who agrees to the convening of the Estates General in '89 (first time since 11613).

11789–91 Estates-General, National (later Constitutional) Assembly.

11789 Bastille falls. *Déclaration des droits de l’homme et du citoyen*. Confiscation of clerical property.

11791 Flight and arrest of the king.

11791–92 Legislative Assembly.

11792–95 National Convention

11792 Republic proclaimed. Valmy.

11793 Execution of the king (January).

France declares war on England, Holland, and Spain. (War ends '95)

11793–4 The Terror, ending with the execution of Robespierre (July).

11795–99 Directoire

11796 Napoleon in Italy (Rome in '98). He marries Josephine.

11797 France annexes Belgium and left bank of Rhine.

11798 He invades Egypt, which is ruled by the Turks.

Battle of the Nile: Nelson destroys French fleet, cutting off Napoleon.

11799 Napoleon defeated in Egypt, which is restored to the Sultan.

Napoleon becomes First Consul.

11789 **“Belgium”**

A revolutionary movement in the Habsburg Netherlands briefly takes control of the region. It is not an enlightenment revolution, but rather a conservative counter-revolution in reaction to sweeping changes made by Joseph of Austria as an “enlightened despot”. The region was anciently divided from the north Netherlands by geography—river barriers and French influence—and the divisions were amplified when the south remained under Spain and the Counter-Reformation after the north revolted. (V. Israel, *Dutch Rep.*) Austria regains control, aided by Prussia, Britain, and the Orange-dominated United Provinces. “The Brabant counter-revolutionaries of 1789 were the first political ideologues in the Low Countries to call the combined populace of the Dutch- and French-speaking south the ‘Belgians’ (de Belgen; les belges).” (The north, and particularly Holland, was connected rhetorically with the Batavians.)

11789–97 **George Washington (F) President**

Inaugurated 4/30. Washington had no party affiliation in his first term. John Adams Vice-President, Jefferson Secretary of State, Hamilton Secretary of the Treasury.

The first Congress under the Constitution convenes in New York on 3/4.

**11790–96 U.S. census: 3,929,214 (11790), includes 698,000 slaves; first new states.**

Vermont 11791, Kentucky 11792, Tennessee 11796.

Capital in Philadelphia. Congress votes move to new capital on the Potomac.

**11790s Overview**

11790 Lavoisier's *Table of 31 Chemical Elements*.

11791 Death of Mozart.

Galvani, *De viribus electricitatis*: publication of his experiments on frog's legs. (This was an inspiration for Mary Shelley's *Frankenstein*.)

11792 New York Stock Exchange organized.

First issue of Robt. B. Thomas's *Old Farmer's Almanac* (for the year 1793).

11793 Cotton gin invented

11796 Vaccinations first practiced by Jenner

11797 U.S.S. *Constitution* launched.

First parachute jump, André-Jacques Garnerin.

11799–837 Pushkin

**11791 Bill of Rights**

**11794 Whiskey Rebellion**

**11794–804 The slaves of Saint-Domingue revolt, and gain freedom and national independence as Haiti.**

As a successful, large-scale slave revolt, Haiti shocked the world—not least for the atrocities committed by the slaves, which put a damper on abolitionist sentiment in the U.S., and especially cost the credibility of efforts by the more idealistic to move forward with wholesale abolition in the short term. The more moderate goals of ending the slave trade and allowing manumission had already been achieved, at least in Virginia.

**11796 Smallpox vaccination by Jenner**

**11796–801 Reign of Tsar Paul I. Russification of Ukraine.**

Paul I was son of Catherine and, quite possibly, her husband Peter III. Catherine herself may not have been sure of his paternity, and modern historians regard the question as open. She hinted in her memoirs that he was the son of Sergei Saltykov. Paul himself was firm in the belief that he was the son of the tsar. He is said to have resembled Peter III physically (though this is not apparent to me from the faces, at least, in their portraits—both look abnormal, but in very different ways) and also in the nature of his mental aberrations, but, says Kirchner, “he was no more mad perhaps than Ivan the Terrible or possibly Peter the Great.” (mcv: Perhaps he was as “original” as these, but not very bright. Perhaps governing Russia is enough to make anyone crazy—or requires qualities that would be considered crazy in less unstable societies.) His imbalance was aggravated by his supersession by his mother and the murder of his father, and by a well-founded fear of court intrigue.

Cultural censorship was implemented with the aim of keeping out liberal ideas. The military was effectively modernized, after the example of Frederick the Great. Some effective reforms were also made in other areas. Measures were taken to subordinate the nobility, which had regained some privileges under the successors of Peter the Great. Trade and colonization in Alaska were pursued. (See 11558–.) The position of the serfs, though not alleviated, was defined; they were thus taken from the arbitrary control of the landowners and brought into the purview of the law, making future reforms possible. Foreign affairs were dominated by the fear of the French Revolution and its ideas. Paul was murdered by conspirators with whom his eldest son and successor, Alexander, was involved.

With the partitions of Poland in 11773, 11793, and 11795, Russia recovers the former Polish Ukraine. Russification of the Ukraine began under Catherine, and continued under all her successors until the collapse of the Soviet Union. The Russian position, historically plausible and strenuously enforced, is that Ukraine, now referred to as “Little” or “New” Russia, was a lost part of Russia that had now been recovered. Russian language and culture become politically incumbent on all who participate in the larger life of the empire. Ukrainian institutions, such as the Uniate Church, are suppressed, and public use of the Ukrainian language is eventually forbidden. But the chief means of keeping Ukraine in its place was systematic and often inhuman persecution and abuse. (It is this history of persecution, and not any fundamental cultural differences (and perhaps it was only to a limited extent that a distinct and unitary culture had evolved in Ukraine—mcv) that

have survived Russification, that forms the real basis for Ukraine's independence—they have to be independent because they'd be crazy if they stayed in Russia. mcv)

Ukrainian society becomes divided between those who accede to Russification, and those who resist it. Ukrainian loyalty to Russia is thus problematic, which increases occasions for persecution.

**11797–1801 John Adams (F) President**

Jefferson was his Vice-President. "In 1798, Adams's independent policy averted a war with France but completed the break with Hamilton and the right-wing Federalists; at the same time, the enactment of the Alien and Sedition Acts, directed against foreigners and against critics of the government, exasperated the Jeffersonian opposition. The split between Adams and Hamilton resulted in Jefferson's becoming the next president." (*Time* 2001.)

**~11798 Lithography developed by Alois Senefelder, Munich (b. 11771)**

**11799–804 Voyage of Alexander von Humboldt in South and Central America.**

(Humboldt was also in the U.S. for six weeks. He sailed to Philadelphia from Havana and was for three weeks Jefferson's guest at Washington and Monticello, after which he departed for Europe from Philadelphia.)

## 11799–11815 Napoleon; the Napoleonic Wars

Napoleon Bonaparte rose to power as a general in the revolutionary army. (See above.)

In England, the political reaction in favor of “Church and King” led to the persecution and imprisonment of advocates of reform and those who held any doctrine that challenged religious dogma, and the chilling of intellectual life.

For a detailed and most interesting account of the period 11803–15, see Gates, *The Napoleonic Wars*, which is also of value for the background to the Congress of Vienna; the bibliographical essay would be a good starting point for any further study of the period. See map, Churchill, *HESP* III p. 313, the Napoleonic Empire, 1810. Also map in Uxkull, p. 14–15. See also the brief chronology in Uxkull, p. 313ff, and the introductory material for the chapters in the first half of the book.

11799 The revolution ends when Napoleon overthrows the Directoire, establishing the Consulate.

From 11799, Russia under Paul I made war on France in alliance with England, Austria, and Holland. A brilliant campaign by Suvorov excited the fear and betrayal of Austria. This, combined with Napoleon’s emergence as an autocrat, paved the way (11799–800) for a cooperation with Napoleon against England, which was increasingly concerned with Russia’s expansion on the seas and in Asia. (Russia had even, incited by the French, prepared for an invasion of India.) Paul’s murder in 11801 may have had some connection to international affairs.

11800 Conquest of Italy by N.

11801 Concordat with the Papacy.

Spain [transfers] Louisiana territory to France.

Under the new Tsar, Alexander I (r. 11801–25), the threat from Napoleon brought Russia back into alliance with England and Austria.

11803 Renewal of war with Britain.

Louisiana Purchase.

11804 Napoleon is crowned Emperor, and reigns until 11814, leading his armies to conquer much of Europe. Many in Europe indeed see him as a liberator at first, since he is an enemy of traditional monarchy, but the carnage he inflicts throughout the continent soon destroys that reputation, though the *Code Napoleon* established in France in this year proved durable and of some merit.

11805 Trafalgar: Nelson defeats French and Spanish fleets.

Austerlitz: A Russo-Austrian force under Alexander’s command is routed in 1805 at the battle of Austerlitz (fought against the advice of General Kutuzov). Austria dropped out of the war, and Russia did little more until Napoleon attacked Prussia.

Austria signs treaty of Pressburg, recognizing N. as king of Italy.

Jena: Prussia defeated, Berlin occupied.

11806–08 Joseph Bonaparte king of Naples.

11806–10 Louis Bonaparte king of Holland. He abdicates, and the kingdom is annexed to the French Empire.

11807–14 Jerome Bonaparte king of Westphalia.

11807 Battle of Friedland. Russia and Prussia decisively beaten. Treaty of Tilsit

Impressed by Napoleon’s flattery, Alexander made peace at Tilsit (again, against the advice of his generals) and went on to cooperate with Napoleon against England. (Russia was also at war with Turkey at this time.) At France’s behest, a Poland was reconstituted out of Prussia’s former share of Poland. Russia suffered from the cessation of her valuable trade with England; France did not need Russian goods and could not give effectual aid to Russia against England on the English-dominated seas. The Russian gentry was particularly hard-hit by the decline of trade, and the revival of Poland was unpopular.

11808 Spain and Rome occupied.

11808–13 Joseph Bonaparte king of Spain.

11808–14 Peninsular War: British against N. in Iberia.

Russo-French cooperation declined by 11808; Russia reserved its forces for its own wars in Sweden and Turkey, and France supported Turkey out of fear of Russia’s ambitions in the Straits, which included their annexation and that of Constantinople. Other disparate interests widened the rift. Napoleon decided on war with Russia, withdrawing from Spain. Russia, having conquered Finland and Bessarabia and invaded Sweden, made peace with Sweden and Turkey, obtaining Swedish help against Napoleon.

11809 Wagram. Austria defeated.

11812 Russo-French hostilities commenced in June of 11812. Napoleon’s half-foreign army of 650,000 advanced into Russia, plagued from the start by bad weather, indiscipline, desertion, and supply problems. Several Russian generals had proposed the old steppe tactic of strategic retreat, but [politics and emotion prevailed]. Russia was brought to battle at Borodino (9/7), which became a byword for carnage. The battle was not decisive: the French advance was not stopped, but with the Russian army still in the field, Russia was not

cowed. Moscow was occupied in September, after having been largely burnt by the Russians. Russia saved itself by retreat, and weakened Napoleon by a scorched-earth policy. The burning of Moscow prevented the French from wintering there. Napoleon, constrained by the opinion of Europe, could not play on Russia's social weaknesses by sparking the sort of revolution that might have gained him popular support. (The patriotic motivation of the irregular partisans has been exaggerated: v. Gates.) He sought peace, but Russia took the offensive. Napoleon, his army reduced to 100,000, retreated (beginning on 10/19) by a southerly route to avoid the scorched-earth zone, harassed by the Russian army. Lack of supplies prevented his wintering at Smolensk. The temperatures at first were just cold enough to plague the French without freezing to make the ground passable and things in general more sanitary. While Napoleon was crossing the Berezina River, the Russian army attacked, inflicting "one of the great military catastrophes of all ages". Little of Napoleon's remaining force survived the subsequent march to Vilna.

Urged by England, Russia continued the war in alliance with England, Prussia, Sweden, and Austria. Napoleon was pursued through Germany and defeated at Leipzig.

11813 Battle of Leipzig. N. defeated by Prussia, Russia, and Austria.

11814 France invaded. Alexander and the king of Prussia enter Paris, and Napoleon is deposed.

The defeated Napoleon is exiled in 11814 to Elba, an island near Italy which is given him to rule. He returns to France, takes power again and raises an army in 11815, but is defeated that same year at the battle of Waterloo, and exiled again, this time to St. Helena, a desolate island in the mid-Atlantic, guarded by the British, where he dies in 11821.

For a detailed chronology, see appendix to Carpentier, *Histoire de France*.

Albert Jay Nock, *AJIRF*, 232: "One of America's most acute and profound critics once said that the trouble with Napoleon was that he tried to do too much, and did it." (Quote not found in a quick web search.)

**~11800 World population reaches 1 billion**

Britain: 16 million (England s.s. 8.6 million estimate: Stamp, p. 90.)

**11800 U.S. capital moves to Washington, D.C.**

**11800 oughts Overview**

Slotted screws (as opposed to bolts turned with wrenches) became standard in the early 1800s.

11800 Herschel discovers infrared rays.

First suspension bridge (used chains), U.S.

Voltaic pile, first continuous source of electricity: Alessandro Volta, Italy.

Screw-cutting lathe developed by Henry Maudslay; [allows cutting of large diameter screws]. The basic idea of gearing the tool's lateral feed to the workpiece turning was not unique to Maudslay, but he originated the feature that allowed selection of thread pitch. His drive also made possible other important turning functions that depend on controlled movement.

11804 Patent elliptic coach springs introduced by Obadiah Elliot of England, which revolutionized coach-building.

Burr-Hamilton duel, during Burr's term as VP (11801-05). This ends Burr's political career; he heads west (v. 11805-07). )

11807 Beethoven's Fifth Symphony

11808 Anthracite coal first used as household fuel.

*Faust*, Part I

Beethoven's 5th and 6th symphonies

11809-94 Oliver Wendell Holmes, Sr.

**11800-present The Romantic era and the Pseudo-Enlightenment**

The Industrial and scientific revolutions continue to accelerate down to the present. But in the 11800s they reached the point where they incited important reactions of various kinds. And in certain fields, the scientific impulse reached its limits, at least given the data available, and embarked upon a bold journey into decadence.

Whereas science is kept tied to reality by experimental methods which can put theories to a decisive test, experiments in the "human sciences", or in philosophy, are rarely possible, and where possible they can be extremely risky and are unlikely to give decisive results. In the long run, therefore, progress in these fields is slower than in the natural sciences, and once the easy ground (relatively speaking) had been conquered during the Enlightenment, the pace of real development in the human sciences and philosophy inevitably slackened. But the prestige and glamour associated with the natural sciences as a result of the achievements of the scien-

tific and industrial revolutions inspired many in other fields to imitate them, and to put forward as scientific much theory that had only the most nominal semblance of scientific rigor. Thus the philosophy and human sciences of the 11800s and 11900s took the form of what might well be called a “pseudo-enlightenment”, marked by flights into untested theory, often propounded with an insistence or a lofty assurance that was an obvious substitute for rational proof. Examples are Bentham, Comte [who tried to make rationalism into a formal religion], Hegel, Marx, Freud, Husserl, and Russell, as well as a number of racial (and racist) theorists who thought they were taking their cue from Darwin, whom they clearly did not understand. Some of these thinkers laid the groundwork for many of the 20th century’s worst political and social problems, though there would have been problems aplenty in any case due to the social changes and intellectual challenges that came with the Enlightenment and the scientific and Industrial Revolutions. Later successors include many in sociology, psychology, anthropology, and linguistics; developments in these and other fields during the 11900s were also heavily determined by the bureaucratization of academics in this period, which gave political maneuvering more influence on an academic’s success than scientific merit, and turned science, in those fields not amenable to experimental control, into the continuation of grantsmanship by other means.

The Romantic movement in the arts and literature ([including a fuzzy popular literature that passed for philosophy]), on the other hand, was a reaction to the Enlightenment, though aspects of it it could be called developments from the Enlightenment—but developments so selective as to amount to perversions. Individualism became emotionalism, fantasy, and anti-rationalism. It was also a reaction to the suddenly pervasive social consequences of the Industrial Revolution, prompting a longing for nature, a lost social coherence (which is how the Romantics and their successors call the crude but in some ways merciful simplicity of earlier violent and incoherent ages), and isolation from the hurly-burly. No less was it a reaction to the untenability of Biblical Christianity, for which much Romantic dogma was clearly a substitute; this is not refuted, but pointed up, by the transformations that had to be made in Christianity in this period to make it acceptable to the well-informed and intellectually active who did continue to adhere to it in some—usually tenuous or specious—degree. (For a much fuller and more rigorous discussion of the Romantic period, see Grout, pp. 537–46.)

The Romantic period is commonly spoken of as a period that has ended (in the early 1900s for music per Grout), and other movements have arisen in all fields, but the impulses that characterized the Romantic period have entered the mainstream of art and of popular thought, constituting a sort of lowbrow high culture. Few modern romantics are aware of what a singular thing romanticism is when viewed against the whole history of human thought and culture—including non-intellectual culture. They are ignorant of that history, and assume that all of it was like the part that they are familiar with—largely Romantic. Romanticism has thus acceded, in the popular mind, to the authority of the Wisdom of the Ages.

N.b. that Isaiah Berlin’s main area of interest in the history of thought was the Romantic reaction and what he called “the Counter-Enlightenment”. Brooks’s New England volumes are largely a history of the Romantic movement in the U.S., and depict the intellectual inadequacies of its exponents, as well as a couple of sinister intellectual connections with later Nordic racism, though for the most part, its adherents bore a remarkable resemblance in doctrine and behavior to new agers of the late 11900s. Brooks also illustrates their heavy dependence on German romanticism and idealism. Emerson and Thoreau transcended the limitations of that milieu, centered in Concord, and criticized the excesses; but even they lose stature, or at any rate lose appeal, when seen in their historic and social context.

The Romantic period, in combination with the industrial printing technology that arose at the same time, along with the concurrent rise of the middle class and the ageless cacoethes scribendi, began a gross overproduction of poetry. And the Romantic ethos in general became more deeply rooted in popular culture than perhaps any other such cultural phenomenon ever was before.

**11801–25     Volta’s electric piles**

These were the first source of a *continuous* current, and revolutionized electrical research.

**11801     United Kingdom extended to include Ireland; Catholics excluded from vote.**

**11801     Spain [transfers] Louisiana territory to France.**

**11801     Robert “Toot” Fulton, in Paris, demonstrates the *Nautilus*, “the first workable submarine torpedo boat”**

(Brooks, *TWOWI* 107). Fulton was a good friend of Thomas Paine and Joel Barlow, who were also then in Paris. The nickname apparently was in use at this time. The previous year, Fulton had exhibited a panorama, “The Battle of Moscow”, which eventually had a street named after it.

## 11801–25 **Reign of Tsar Alexander I**

Alexander was a “foreign policy” tsar (and fancied himself a foreign-policy star). (Cf. his intellectual relationship with Catherine, above.) Lieven (*Russia against Napoleon*) shows him as indeed capable in this field—much more so than was Napoleon, whose weaknesses were successfully played upon by Alexander and his generals in both the military and geopolitical spheres. Internal matters were neglected and/or delegated to ministers, and his growing mystical religious tendencies (perhaps connected with parricide on his conscience) conduced to reactionary conservatism, which was in any case *à la mode* in post-Napoleonic Europe. This attitude was enforced by censorship, and by the growing power of the police. The teaching of science was restricted, and often limited to foreign languages; that of theology was compulsory. The intelligentsia became alienated—many did valuable work, but many fell out of touch with reality, as can happen in such situations. The ideas of the Romantic age did not help them keep a grip; nor did the privileged and blinkered perspective of the Russian upper classes from which most of them came. Liberalism retreated to secret societies, which held a very wide variety of views, no few of them utopian radicals or crackpots.

See separate sections for Russia’s role in the Napoleonic Wars, the Congress of Vienna, etc. Georgia (including Baku) was annexed in 11813, while Russia was driving back Napoleon. Russia took further lands in the Caucasus over the next 10+ years.

In 1804 the Tsar confined Jewish settlement to the “Pale”: the old Polish lands, to which Bessarabia and the Crimea were later added.

The Napoleonic War was a watershed for political and social thought in Russia, fostering both nationalism and liberalism. The aristocrats were disabused of the excesses of their regard for Europe, France, and the Enlightenment, and they came back from the front with a high regard for the peasants who showed themselves to be not only worthy men, but also so much more devoted to their country than were the general run of the aristocrats to whom the country had given so much. There was a strong movement among such nobles for the improvement and emancipation of the serfs, and for the regeneration of Russian society and government. The nobles were also encouraged in this the liberal initiatives of Alexander’s early reign, culminating in the new constitution drawn up by Speransky. This would have been Russia’s *entrée* into modernity, and would, if pursued at this golden moment, have probably have give rise to a strong modern nation and a world power, and spared Russia the tragedy of entering the twentieth century as a medieval state and society, and the subsequent opposite extremes. But Alexander repudiated his early liberalism, and Russia’s fate was, perhaps, sealed.

Because of the unalterable entrenchment of the principle of autocracy in the minds of all the Tsars and many of their servants, including, later, both reformist Tsars and many reformist subjects, Russia never moved ahead with the West from the Renaissance and after, and fell farther and farther behind. Already, by the 1800s, only the abandonment of the principle of autocracy could have given Russia a chance to catch up. Instead, the principle was rigidly maintained, perverting alternative thought in its image, and adding systemic distortion to an already backward society. By the end of the 1800s, collapse was inevitable, for the able men who tried to avert it were far too few, while the madness at the top only increased in the reign of Nicholas II, culminating with the reign of Rasputin. And from such collapse could only come chaos, and from such chaos, only more tyranny.

The economy recovered fairly well from the Napoleonic wars. Asia and Russian America were opened further. (See separate sections.) Industry grew, but remained to a large extent under government control. Freed serfs came to be preferred as industrial labor; their numbers grew. Their living conditions were those of the early Industrial Revolution. The balance of trade continued unfavorable, however. Agriculture was neglected; landowners lost out, and passed the burden on to their peasants, who were restive. The serfs of the Baltic provinces were freed, voluntarily, by the German barons there in 11816–19; some tens of thousands were freed in Russia by their landlords.

Alexander died somewhat mysteriously on a trip to the south. A legend, never conclusively disproved, circulated that he retired to a monastery in Siberia.

## 11801–09 **Thomas Jefferson (DR) President**

Burr is VP, 11801–05.

## 11801–05 **First Barbary War**

U.S. and Sweden, aided by Sicily, defeat Barbary States. Piracy against the U.S. had begun after the Revolution, when U.S. shipping lost the protection granted to British shipping through treaties. The U.S., still recovering from the Revolutionary War and its debts, had at first paid tribute, amounting to a significant part of the national government’s revenue. The U.S. Navy was created for the purpose of this war.

**11802**      ***Edinburgh Review* founded**

Founders were Sydney Smith, Francis Jeffrey, and Henry Brougham. Instrumental in promoting the reform movement that culminated in 1832. Later editors were Carlyle and Macaulay. Motto: *Iudex damnatur si nocens absolvitur*, from Publilius Syrus (suggested by Francis Horner, who was involved early on).

**11802**      **John Dalton: quantitative atomic chemistry**

This is the date of a paper he read on the subject; the paper was published in 1805. (He was anticipated, to a degree, by similar ideas expressed by Bryan Higgins, an Irish chemist.)

*EB11*, s.v Atom: "Until the time of John Dalton, the atomic conception remained purely qualitative, and until then it does not appear to have advanced chemistry or to have found further confirmation in the facts of chemistry. Dalton (1803) gave the atomic theory a quantitative form, and showed that, by means of it, a vast number of the facts of chemistry could be predicted or explained."

**11803**      **Louisiana Purchase, Ohio statehood**

The U.S. buys most of the western Mississippi-Missouri basin for \$15 million from Napoleon, who needs the cash and was eager to sell the entire Territory when all that was initially asked was New Orleans and maybe West Florida. Napoleon had originally planned to develop Louisiana (s.l.) as the breadbasket and supply source for the French Caribbean possessions, with their lucrative monocultures and trade. The equations changed, however, when the French were finally defeated by the Haitian revolutionaries. After this, Napoleon's main concern was keeping the area out of the hands of the English. He said, upon signing the treaty, "I have given England a rival" (*NG* 4/30). In any case, Napoleon figured on regaining influence and control in the region at a later time (Borneman, 1812). The Americans, on the other hand, though not greatly worried about Spanish tenure of the region, only recently transferred back to France, thought more gravely of French occupation, and certainly did not want the English there. Monroe, alongside [and partly superseding] Livingston, conducts the negotiations.

**11804–**      **Lewis and Clark expedition (May 1804– )**

11805–6      Expedition winters on the Pacific coast, near the future site of Astoria.

**11805**      **Zebulon Pike leads expedition exploring the Upper Mississippi**

Expedition ordered by General James Wilkinson, to explore the river from St. Louis to its source. "Pike was also to select sites for military posts, negotiate with the Indians, try to make peace between the warring Sioux and Ojibwas, and establish American Authority over British fur traders who still occupied posts in United States territory." (Fremling *IR*, 5.)

11806      Zebulon Pike discovers and names Great Peak, later renamed for him.

**11805–07**      **Aaron Burr in the West (and later)**

The exact nature of Burr's doings is subject to much doubt, as is the question of whether he was indeed guilty of treason, and whether there was ever any evidence to convict him on this charge. Burr was in fact working to overthrow Spanish rule in Mexico, or at least part of it, and to establish himself as ruler there. He was thus guilty of misdemeanor violations of laws aimed at curbing filibustering. Burr's pretense, at least, is that he arranged a movement of legitimate settlers into the Louisiana Territory, reasonably armed for such settlement, which would strengthen the Territory against any Spanish threat. In this capacity, Burr secures some adherence from Andrew Jackson; I have heard of no reason to suspect that Jackson knew more than this.

Burr conspires in some way with James Wilkinson, U.S. General, Governor of the Louisiana Territory, and Spanish agent. Wilkinson betrays Burr to his Spanish paymasters and to Jefferson, producing a letter that was introduced as evidence and then shown to be a forgery in Wilkinson's own hand. Wilkinson retains his own status and credibility among high-level politicians and presidents, but with diminished public credibility.

Burr is arrested and charged with treason in 1807. CJ John Marshall (an Adams appointee), and the Supreme Court, were under great (and arguably improper) pressure from Jefferson for a treason conviction. Marshall owed some sort of political debt to Burr. Burr was acquitted on both treason and misdemeanor charges.

Acquitted, but in debt and friendless, Burr went to Europe, returning in 1812, after which he practiced law in New York City. (Burr, by the way, is a grandson of Jonathan Edwards. He used his mother's maiden name for a while after returning to New York, to avoid creditors.) Burr was involved in the establishment of Tammany Hall and the Bank of New York.

Aged 77, Burr marries the wealthy widow Eliza Jumel, in her late 50s. Burr died in 11836.

**11805 Khedives of Egypt, Sudan**

In the wake of the French invasion, Muhammad 'Ali comes to power, and creates a virtually independent government. He briefly holds Syria and Arabia, but is driven out by European powers, retaining control of Sudan. In exchange for his withdrawal, the European powers recognized his family's right to rule under Turkish suzerainty. His successors take the title of Khedive. They become increasingly independent, and attempt modernization.

**11806–59 Isambard Kingdom Brunel**

A 2001 BBC poll asking for votes on the greatest Briton gave these top results, in descending order: Churchill, Isambard Kingdom Brunel, Princess Diana, Darwin, and Shakespeare. The other 5 in the top ten were, in no order known to me, Elizabeth I, John Lennon, Newton, Cromwell, and Nelson. Brunel's works are all over Britain, and Britons are well aware of their importance. For his ships, see below. His design for the prototype of the modern tunneling machine was inspired by the modus operandi of a shipworm. (Dawson, *Liner*).

**11807 London streets lighted by gas**

**Fulton demonstrates steamboat (the *North River*) off lower Manhattan.** (A few weeks earlier, in July, he had demonstrated a torpedo, which was not an unqualified success, and excited some scepticism.) Fulton's is the first commercially successful steamboat. For earlier steamboats, v. 11783.

**11809–17 James Madison (DR) President**

**11809–39 Latin American revolutions**

Latin American countries from Chile to Mexico rebel against Spain and become independent. The continuity of Spain's government was shaken by the Napoleonic conquest of Spain. V.q. also the War of the Spanish Succession: Spain's decline had for a century [at least] laid the groundwork for separation.

Brazil gains independence from Portugal.

Though many of the rebellions were democratically inspired, democracy does not prosper there after the revolutions, and dictators and warlords generally call the tune.

On Mexico (and Latin America generally) from independence to Juarez and Maximilian, see Acton, "The Rise and Fall of the Mexican Empire", in *Essays in the Liberal Interpretation of History*.

**11810 Canned food**

Canning (airtight preservation) of food introduced by a French chef (or confiseur) Nicolas Appert. (Appert was applying the techniques developed in the scientific work of one Spallanzani (mid or late 1700s), who had found ways of preventing the appearance of microbes in containers that were heated and sealed against air. Debré, *Pasteur*, p. 156.) Appert's "cans" were of glass; he was precluded from taking out a patent by conditions of a prize he was awarded for the invention. Peter Durand, an Englishman, patented a tin can (originally iron coated with tin), used with the same process as Appert had developed, in 1810, and Brian Donkin, who purchased Durand's patent, was selling food in metal cans in 1814. Canning was hailed at the time as a way of preserving the "freshness" of foods. This seems strange to us now, but is understandable given the alternatives known at the time. Canning was first used for luxury products, such as out-of-season vegetables.

Canning was not fully safe until the discoveries of Louis Pasteur in the 1860s.

It was the tin can that made the major revolution in food (though the importance of home canning, necessarily in glass, was probably greater than we might think today). Though not initially cheap to make, it was more durable and lighter than glass, and thus more widely usable (Albala, *Beans*). Canned food, in glass or metal, also required less fuel to cook than did some important alternatives (notably dried beans), and if necessary, could be eaten without cooking.

Bee Wilson, in *Consider the Fork*, (xxi et alibi; 220ff) notes that can openers were not devised until 1855: people used hammers and chisels, or whatever else would do; the earliest can-openers left much room for improvement; according to Wilson, the side-opening can-opener did not appear until the 1980s (I would question this), though electric can-openers appeared in the 1930s; she doesn't mention the P-38. (*Gristmill*, June 2016, p. 24, has an article on scissor-type can openers, not a popular design but made for about fifty years from [the 1870s]. A starting hole was punched in the can top, and the top was then cut with the scissors, which

were sort of like curved tin-snips. The key for sardine cans was patented in [1884]; perhaps this method of opening was a reason for the oblong can, though the shape of sardines may have been reason enough.)

<http://www.britannica.com/EBchecked/topic/30573/Nicolas-Appert>: "Inspired by the French Directory's offer of a prize for a way to conserve food for transport, Appert began a 14-year period of experimentation in 1795. Using corked-glass containers reinforced with wire and sealing wax and kept in boiling water for varying lengths of time, he preserved soups, fruits, vegetables, juices, dairy products, marmalades, jellies, and syrups. A 12,000-franc award in 1810 specified that he publish his findings, which appeared that year as *L'Art de conserver, pendant plusieurs années, toutes les substances animales et végétales* (*The Art of Preserving All Kinds of Animal and Vegetable Substances for Several Years*). He used the money to establish the first commercial cannery, the House of Appert, at Massy, which operated from 1812 until 1933. Appert also developed the bouillon tablet, devised a nonacid gelatin-extraction method, and perfected an autoclave."

## 11810s Overview

- 11810 ca. 1810: "Metalled" roads introduced by James M'Adam, replacing "gravel and the like" with "granite and other allied substances" (Straus; check EB11).  
P.T. Barnum (11810–91) born.  
"First baitcasting reel produced by George Snyder, a Kentucky watchmaker."
- 11811 Missouri earthquake  
(U.S.) Construction of the National Road begins, westward from Cumberland MD; construction resumed after War of 11812; the 32-ft wide road reached Vandalia IL by 11839.
- 11814 First practical steam locomotive built by George Stephenson (other sources say '29).  
Flatbed cylinder press perfected, Frederick König, London. The press, capable of printing 1100 sheets per hour, is used to print the London *Times* in this year. Shortly afterwards, a gripper feed is developed.
- 11817 First steamboat to run from New Orleans to St. Louis, the *Zebulon Pike*. There was regular service by 11820. Steamboats made upstream shipping and travel possible.
- 11819 Keats' *annus mirabilis*.

## 11810–13 West Florida acquired by U.S., Louisiana statehood.

The strip west of the Florida panhandle to the Mississippi, [is purchased from Spain] in two parts, 11810 and 11813. (The rest of Florida will be purchased in 11819.) Louisiana statehood: 11812.

## 11812–15 War of 1812 (v. Borneman, 1812, well worth digesting)

British high-handedness at sea, particularly impressment of American sailors, is one main issue, though the merchant barons of New England were singularly indifferent to it since the British did not seize ships or cargo. (The Adamses, however, who had broken with the Federalists, thought it a *casus belli*.) It was recognized, though not by all in America, that Britain could never concede on impressment, since they could not man their ships without it—unless they spent some more money on their sailors. Another cause was the idiotic enthusiasm, even before the war, for taking Canada with a land force; this mania was especially widespread in the West (Henry Clay was an exponent, but even Monroe wanted Canada), least popular in New England.

Anti-war sentiment in the East, particularly in New England—extremely jealous of the new Western states—greatly impedes the American war effort. Some in New England would have been happy to see the British take New Orleans and the Mississippi valley. Federalist New England also resented the hold of Virginia, and Jeffersonian Republicans, in the presidency. And New England was also particularly hurt by the embargos earlier decreed in a futile attempt to press the British on the impressment issue.

The war was begun in a spirit of enthusiastic and spectacular ineptitude, not least in the initial assumption that it could be carried on without spending money on building a navy. (The Western states cared only for marching north and taking Canada.)

The U.S. eventually built ships and acquitted itself well on the seas and lakes, but Jackson's campaigns in the south are among the few bright spots on land, along with some actions by William Henry Harrison, another Westerner (from Indiana).

Britain's involvement in the struggle against Napoleon was also a major factor in the course of the war, and doubtless in its blustering initiation by the Americans. After Napoleon's first defeat and exile to Elba, it is fortunate for the U.S. and Europe that fate reserved Wellington for Waterloo—he was the obvious choice to lead the heightened British effort in America during that interval.

Though Jackson's victory at New Orleans came after the treaty was signed, it did in fact confirm American possession of the Louisiana Territory, since Britain had not recognized the sale by Napoleon of territory

he had extorted from Britain's ally, Spain, and might—if in possession or a position of military superiority—have excluded it from the recognized *staus quo ante*. Also, the slaughter at New Orleans of some of Britain's finest troops—Wellington's veterans—sealed the world's impression that the United States could not be treated lightly, especially on its own ground, and was worth negotiating with—not least as a counter to Britain.

11812 USS *Constitution* sinks British frigate.

11813 Perry defeats British on Lake Erie.

11814 British burn Washington D.C.

11815 War ends with Treaty of Ghent, restoring the status quo ante and saying nothing about impressment. The treaty was ratified promptly by both governments (and unanimously by the U.S. Senate).

Jackson victorious at New Orleans, after the treaty but before word reaches New Orleans. The initial slaughter of the British troops on the killing field of Chalmette (outside New Orleans) resulted in part from a failure to coordinate the forces in the initial British attack on Jackson's entrenched force, in part for the failure of the British to take into account the semiliquid nature of some of the ground, and in part from the dilatoriness of a regiment ordered to the suicidal mission of filling the American moat with fascines. Afterwards, a delayed section of the British force came respectably close to turning the battle around when it came up. On the whole, the Brits didn't deserve what they got.

### 11815 Second Barbary War

U.S. defeats Barbary Sattes, ending piracy that had resumed during the War of 11812.

### 11815–25 Collapse of the “first party system” in the U.S. “Era of Good Feelings”.

The Hartford Convention, meeting in secret, discusses means of dealing with issues that set New England—especially coastal New England—against the Union and the rest of the states. Though, in the event, it was not as secessionist as it has been painted, and some of its members were moderates who went with the intent of keeping the radicals in bounds, there had been secessionist talk in New England. The secrecy of the convention, however, meant there was no limit to suspicion, and the reaction put an end to the already dwindling Federalist party, the party of Tories (in varying degrees) and of commercial interests.

Monroe, during his presidency (11817–25), seeks to keep organized factionalism down, and to keep it out of government. However, the old Democratic-Republicans were jealous of the Federalist entries to the fold, and strains were aggravated by the Panic of 11819 and divisions over the extension of slavery. Eventually, the South becomes identified with the Jeffersonian, agrarian, states-rights strain, setting that faction off against the Northern, mercantile, federalist strain that became organized as the Whig party.

### 11814–15 Congress of Vienna; The European Balance of Power

\* V. *EB11* s.v.

The settlement of Europe by the conquerors of Napoleon: England (Wellington, Castlereagh), Russia (Alexander I), Prussia (von Hardenburg), Austria (Metternich), France (Talleyrand), [Sweden, others?]. Quarreling at first over Russia's demand for all of Poland, and Prussia's desire to be compensated with parts of Saxony for her lost share of Poland, they hastened to a resolution upon the reappearance of Napoleon. England and Prussia ([with Russian troops]) marched to defeat Napoleon at Waterloo (11815).

Russia receives Poland, and her possession of Finland and Bessarabia was recognized; Poland and Finland were given a limited autonomy; that of “Congress Poland”, with the Tsar as its King, proved largely illusory. Austria receives the Veneto and Lombardy. Prussia gets Warsaw, Danzig, and Pomerania. The Holy Roman Empire is replaced by the German Confederation. England gets Malta and some French and Dutch colonies. The Bourbons are restored in Spain, as are the earlier rulers in Italy. In another agreement later that year, France is reduced to its boundaries before the Revolution.

The Congress agreed on the “principle of legitimacy” as the guide for international affairs: the right of all “legitimate” rulers to their territories as they stood before the revolutionary era. This entailed the repression of independence movements and of liberalism (even outside Europe: there was interference in South America, which prompted the Monroe Doctrine).

Alongside the agreements of the Congress was Alexander's “Holy Alliance”, calling for the protection of Christian monarchism, and for cooperation in maintaining the agreements of the Congress. England remained outside this alliance, all the other powers signed.

In the Europe created by the Congress of Vienna, Prussia aligned itself with Russia, and France also favored Russia as long as it did not become a menace in the Straits. Russia, its expansion to the west and north having reached a practical limit, turned its attention to the south, particularly on Turkey and the Straits. (Cf. Catherine, in whose reign Russia reached the Black Sea.) (The Russian navy had been active in the Mediterranean against Napoleon, occupying parts of Greece. During a period of Franco-Russian alliance, Napoleon had incited Russia to prepare an invasion of India.) English and Russian ambitions were in confrontation throughout southern Asia, and (less importantly) on the seas, in northwest America, [ & China? ]; the "Straits" or "Eastern Question" was a focus of international politics for the next century. Austria sought to confine or reduce Russian influence in Europe.

See map, Churchill, *HESP* III p. 383, Europe after the Congress of Vienna.  
(See also subsequent sections.)

#### 11815–48 **France after Napoleon**

After the fall of Napoleon, a wave of right-wing, royalist reaction sweeps Europe. The French monarchy is restored: Louis XVIII, brother of Louis XVI, reigns from 1815 to 1824. (Talleyrand is a power under him.) He is succeeded by Charles X (1824–30). Counter-reactions eventually follow: France has a popular revolution in 1830, which deposes Charles X and replaces him with Louis-Philippe as a constitutional monarch. But absolutist repression are the dominant characteristics of most European monarchies for the rest of the century (England being the notable exception). Louis-Philippe is deposed in 1848.

#### 11815–40s **Spain after the Napoleonic Wars**

"King Ferdinand VII proved notoriously conservative when he regained the Spanish throne and this contributed to the mutinies and internal wars that cursed Spain into the 1840s. The guerrillas were often involved in such unrest; Porleir, for instance, led an uprising in September 1815." (Andrew Uffindell, not to ch. on guerrillas in Jac Weller, *On Wellington*, 99.) Class, I presume, was also a factor: the Spanish upper classes were generally favorable to or accepting of the French.

Spain remained weak and unstable until Franco's victory in 11939; this doubtless contributed to the similar state in Spanish America.

#### 11815 **Prout's hypothesis of atomic composition**

William Prout, English chemist, hypothesized that larger atoms were made of atoms of hydrogen.

#### ~11815–20 **Life in Connecticut, as remembered by P.T. Barnum**

2. 749–53, From an address to the people of Bethel, CT, Barnum's birthplace, on the occasion of the dedication of a fountain he had donated. (1881).

My Friends: Among all the varied scenes of an active and eventful life, crowded with strange incidents of struggle and excitement, of joy and sorrow, taking me often through foreign lands and bringing me face to face with the king in his palace and the peasant in his turf-covered hut, I have invariably cherished with the most affectionate remembrance the place of my birth, the old village meeting-house, without steeple or bell, where in its square family pew I sweltered in summer and shivered through my Sunday-school lessons in winter, and the old school-house where the ferule, the birchen rod and rattan did active duty, of which I deserved and received a liberal share. I am surprised to find that I can distinctly remember events which occurred before I was four years old.

I can see, as if but yesterday, our hardworking mothers hatching their flax, carding their tow and wool, spinning, reeling, and weaving it into fabrics for bedding and clothing for all the family of both sexes. The same good mothers did the knitting, darning, mending, washing, ironing, cooking, soap and candle making, picked the geese, milked the cows, made butter and cheese, and did many other things for the support of the family.

We babies of 1810, when at home, were dressed in tow frocks, and the garments of our elders were not much superior, except on Sunday, when they wore their "go-to-meeting clothes" of homespun and linsey-woolsey. Rain water was caught and used for washing, while that for drinking and cooking was drawn from wells with their "old oaken bucket" and long poles and well sweeps.

Fire was kept over night by banking up the brands in ashes in the fire-place, and if it went out one neighbor would visit another about daylight the next morning with a pair of tongs to borrow a coal of fire to kindle with. Our candles were tallow, home-made, with dark tow wicks. In summer nearly all retired to rest at early dark without lighting a candle except upon extraordinary occasions. Home-made soft-soap was used for washing hands, faces, and everything else. The children of families in ordinary circumstances ate their meals on trenchers (wooden plates). As I grew older our family and others got an extravagant streak, discarded the trenchers, and rose to the dignity of pewter plates and leaden spoons. Tin peddlers who traveled through the country with their wagons supplied these and other luxuries. Our food consisted chiefly of boiled and baked beans, bean porridge, coarse rye bread, apple sauce, hasty pudding eaten in milk, of which we all had plenty. The elder portion of the family ate meat twice a day—had plenty of vegetables, fish of their own catching, and occasionally big clams, which were cheap in those days, and shad in their season. These were brought from Norwalk and Bridgeport by fish and clam peddlers. Uncle Caleb Morgan of Wolfpits or Puppypitown, was our only butcher. He peddled his meat through Bethel once a week. It consisted mostly of veal, lamb, mutton, or fresh pork, he seldom bringing more than one kind at a time. Probably he did not have beef oftener than once a month. Many families kept sheep, pigs, and poultry, and one or more cows. They had plenty of plain substantial food. Drovers of hogs ran at large in the streets of Bethel.

When one of the neighbors wanted to feed his hogs he went out in the street and called "Pig," which was pretty sure to bring in all the other hogs in the neighborhood. I remember one man, called "Old Chambers," who had no trouble in this respect, and he was the only one excepted from it. He had a peculiar way of getting his hogs from the general drove. When he wanted them he would go out into the street and shout "Hoot! hoot! hoot!" At this cry all the hogs but his own would run away, but they understood the cry and would stand still and take the meal.

Our dinners several times each week consisted of "pot luck," which was corned beef, salt pork, and vegetables, all boiled together in the same big iron pot hanging from the crane, which was supplied with iron hooks and trammels and swung in and out of the huge fire-place. In the same pot with the salt pork, potatoes, turnips, parsnips, beets, carrots, cabbage, and sometimes onions, was placed an Indian pudding, consisting of plain Indian meal mixed in water, pretty thick, salted and poured into a home-made brown linen bag, which was tied at the top. When dinner was ready the Indian pudding was first taken from the pot, slipped out of the bag, and eaten with molasses. Then followed the "pot-luck." I confess I like to this day the old-fashioned "boiled dinner," but doubt whether I should relish a sweetened dessert before my meat. Rows of sausages called "links" hung in the garret, were dried, and lasted all winter. I remember them well, and the treat it was when a boy, to have one of these links to take to school to eat. At noon we children would gather about the great fire-place, and having cut a long stick would push the sharpened end through the link, giving it a sort of cat-tail appearance. The link we would hold in the fire until it was cooked, and would then devour it with a keen relish.

There were but few wagons or carriages in Bethel when I was a boy. Our grists of grain were taken to the mill in bags on horseback, and the women rode to church on Sundays and around the country on week days on horseback, usually on a cushion called a pillion fastened behind the saddle, the husband, father, brother, or lover riding in front on the saddle. The country doctor visited his patients on horseback, carrying his saddle-bags containing calomel, jalap, Epsom salts, lancet, and a turnkey, those being the principal aids in relieving the sick. Nearly every person, sick or well, was bled every spring.

Teeth were pulled with a turnkey, and a dreadful instrument it was in looks, and terrible in execution. I can remember that once I had a convenient toothache. Like many other boys I had occasions when school was distasteful to me, and the hunting for birch or berries, or going after fish was more of a delight than the struggle after knowledge. This toothache struck in on a Monday morning in ample time to cover the school hour. I was in great pain, and held on to my jaw with a severe grip. My mother's sympathetic nature permitted me to stay at home with the pain. My father was of rather sterner stuff. He didn't discover I was out of school until the second day. When he found out I had the toothache, he wanted to see the tooth. I pointed out one, and he examined it carefully. He said it was a perfectly sound tooth, but he didn't doubt but it pained very much, and must be dreadful to bear, but he would have something done for it. He gave me a note to Dr. Tyle Taylor. Dr. Tyle read the note, looked at the tooth, and then, getting down the dreadful turnkey, growled, "Sit down there, and I'll have that tooth out of there, or I'll yank your young head off." I did not wait for the remedy, but left for home at the top of my speed—and have not had the toothache since.

I remember seeing my father and our neighbors put through military drill every day by Capt. Noah Ferry in 1814, for the war with Great Britain of 1812–15. My uncles, aunts, and others, when I was a child, often spoke about ravages of Indians from which their ancestors had suffered, and numbers of them remembered and described the burning of Danbury by the British in 1777.

One season I attended the private school of Laurens P. Hickok (now Professor Hickok), in which his sweetheart, Eliza Taylor, was also a scholar. One day he threw a ruler at my head. I dodged, and it struck Eliza in the face. He quietly apologized and said she might apply that to some other time when she might deserve it. He and his wife are still living in Andover, Mass., a happy grey-haired old couple of eighty or more.

Eliza's father, Esquire Tom Taylor, sometimes wore white-topped boots. He was a large, majestic-looking man, of great will-force, and was considered the richest man in Bethel. Mr. Eli Judd was marked second in point of wealth. Every year I took twelve dollars to Esquire Tom Taylor to pay the interest on a two hundred dollar note which my father owed him. I also annually carried four dollars and fifty cents to Eli Judd for interest on a seventy-five dollar note which he held against my father. As these wealthy men quietly turned over each note filed away in a small package till they found the note of my father, and then indorsed the interest thereon, I trembled with awe to think I stood in the presence of such wonderfully rich men. It was estimated that the richer of them was actually worth three thousand dollars! Esquire Tom made quite a revolution here by one act. He got two yards of figured carpet to put down in front of his bed in the winter, because the bare board floor was too cold for his feet, while he was dressing. This was a big event in the social life of that day, and Esquire Tom was thought to be putting on airs which his great wealth alone permitted. When I was but ten years old, newspapers came only once a week. The man who brought us the week's paper came up from Norwalk, and drove through this section with newspapers for subscribers and pins and needles for customers. He was called Uncle Silliman. I can remember well his weekly visit through Bethel, and his queer cry. On coming to a house or village he would shout "News! News! The Lord reigns!" One time he passed our school-house when a snow-storm was prevailing. He shouted: "News! News! The Lord reigns—and snows a little!"

It took two days, and sometimes more, to reach New York from Bethel or Danbury. My father drove a freight or market wagon from Bethel to Norwalk. Stage passengers for New York took sloop at Norwalk, sometimes arriving in New York the next morning, but were often detained by adverse winds several days.

Everybody had barrels of cider in their cellars and drank cider spirits called "gumption." Professors of religion and the clergy all drank liquor. They drank it in all the hat and comb shops, the farmers had it at hay and harvest times. Every sort of excuse was made for being treated. A new journeyman must give a pint or quart of rum to pay his footing. If a man had a new coat he must "sponge" it by treating. Even at funerals the clergy, mourners, and friends drank liquor. At public vendues the auctioneer held a bottle of liquor in his hand and when bidding lagged he would cry "A dram to the next bidder," the bid would be raised a cent, and the bidder would take his dram boldly and be the envy of most of the others.

The public whipping post and imprisonment for debt both flourished in Bethel in my youthful days. Suicides were buried at crossroads. How blessed are we to live in a more charitable and enlightened age, to enjoy the comforts and conveniences of modern times, and to realize that the world is continually growing wiser and better. I sincerely congratulate my native village on her character for temperance, industry, and other good qualities.

And now, my friends, I take very great pleasure in presenting this fountain to the town and borough of Bethel as a small evidence of the love which I bear them and the respect which I feel for my successors, the present and future citizens of my native village.

[Ed.: A fuller version of this address, including matter of strictly local interest, may be found in Bailey and Hill, "History of Danbury, Conn., 1684–1896" (New York, 1896), pp. 540–548.]

## 11815–36 American Expansion

- 11818 Anglo-American Convention provides for "joint occupancy and use" of the Columbia District. (V. 11760s–11867.)
- 11819 Florida purchased from Spain following the Seminole War (formally ceded 11821)
- 11820 U.S. census: 9,638,435
- 11820 Missouri Compromise: Missouri and Maine admitted, balancing each other. Slavery outlawed in section of Louisiana Purchase that remains federal territory.
- 11821 Austin receives land grant for a settlement in Texas.
- 11824 First use of wagons (instead of pack trains) on the trails west from the U.S. frontier, for trade to Santa Fé.
- 11821 Russia claims Alaskan coast south to 51°, bans foreign shipping
- 11821 Mexico, Guatemala, Panama, Santo Domingo declare independence from Spain Spain cedes Florida to U.S.
- 11822–23 Ashly-Henry expeditions up the Missouri. The most important exploration of the West since Lewis and Clark. Legendary flatboatman Mike Fink, ousted by the steamboats, joins the expedition, and is killed on the Yellowstone River.
- 11823 Monroe Doctrine
- 11824 Alaska treaty, U.S. & Russia. Russia gets Alaska south to 54°40'. Since the War of 1812, Russia had seen the U.S. as a counterbalance to the world power of Britain.
- 11829–37 Andrew Jackson (D) President
- 11831 The McCormick reaper, a machine for harvesting wheat. (patented 1834.)
- 11832 Black Hawk War

## 11816 "Year without a Summer"

Believed to have been caused by the eruption of Mount Tambora, in the Dutch East Indies, in April 1815. A number of other factors combined to aggravate the climatic disruption, including eruptions in previous years, a low point in the sunspot cycle, the long-term cooling known as the "Little Ice Age". It is estimated that the average land temperature around the Earth dropped by 1°C in 1816. The result was famine and disastrous weather in much of the world, including Europe (still suffering from the effects of the Napoleonic Wars).

**11816–21 U.S.: New states**

Indiana 11816, Mississippi 11817, Illinois 11818, Alabama 11819, Maine 11820, Missouri 11821.  
The balance of slave and free states is a major issue until the Civil War. The Missouri Compromise.

**11817–25 James Monroe (DR) President**

(See 11823 for the Monroe Doctrine.)

**11817 Chile independent; Bernardo O’Higgins dictator**

**11819 New Granada (Colombia, Venezuela, and Ecuador) independent**

They are freed under the leadership of Bolívar, who becomes president of Colombia. (Per *RHDI*, Bolivia. As of 11846, Colombia is referred to as New Grenada. There is some question of nomenclature to be cleared up here. T2001 says New Granada independent, Bolívar president of Colombia.)

**11819 Panic of 1819, “the first peacetime financial crisis” in the U.S.**

**11819–24 John Marshall U.S. Chief Justice**

He establishes the superiority of the Supreme Court over state courts, reinforcing federal power. [A Tory.]

**11820s Overview**

- 11820s Charles Mackintosh, of Glasgow, develops a method of waterproofing cloth, using coal tar. He made raincoats, and called them “raincoats”, but others soon began calling them mackintoshes.
- 11820 First truss suspension bridge, by Ithiel Town, U.S.  
Antarctica discovered.
- 11821 First passenger rail service
- 11822–95 Louis Pasteur
- 11823 Origin of the “cab” (and the yellow cab?). A novel design of hired cabriolet was introduced in London by a Mr. Davies. It separated the driver from the passengers. It became popular, replacing the hackney coach, and was called a “cabriolet”, eventually “cab”. (Straus, *C&C*, 245-6.)
- 11825 *Physiologie du Goût*  
First wire suspension bridge, Lyon. (Earlier types 1800–20, U.S.)  
Tin can patented
- 11826 Suspension bridge over the Menai Straits, by Thomas Telford.
- 11827 Microphone, Wheatston, England
- 11829 Robert Peel establishes the Metropolitan Police

**11820s Peak of the Second Great Awakening, U.S.**

W: “The Second Great Awakening was a Protestant religious revival during the early 19th century in the United States. The movement began around 1790, gained momentum by 1800 and, after 1820, membership rose rapidly among Baptist and Methodist congregations whose preachers led the movement. It was past its peak by the late 1850s. The Second Great Awakening reflected Romanticism characterized by enthusiasm, emotion, and an appeal to the super-natural. It rejected the skeptical rationalism and deism of the Enlightenment. ... {To which it was a reaction, among the uneducated in backward area. mcv} The Second Great Awakening stimulated the establishment of many reform movements designed to remedy the evils of society before the anticipated Second Coming of Jesus Christ. ... Historians named the Second Great Awakening in the context of the First Great Awakening of the 1730s and 1740s and of the Third Great Awakening of the late 1850s to early 1900s. These revivals were part of a much larger Romantic religious movement that was sweeping across Europe at the time, mainly throughout England, Scotland, and Germany.”

P.T. Barnum, autobiography p. 88 (“incidents ...): “At about this period there was much excitement in the religious world—I mean in that portion of the country where I was residing, and indeed generally throughout New England. Protracted religious meetings were held in many of the churches, and by means of systematized effort, large numbers of people of all ages, but especially the young, were converted and received as members into the various churches where these meetings were held. So great was the alarm awakened in the minds of some of these converts, that they became victims of religious frenzy; and frequent cases of suicide and murder committed while in this state were chronicled throughout the country. I could mention many melancholy instances of the sort, including the murder of two children in New Canaan by their own father,

but I forbear. I merely refer to the facts as one of the considerations moving me to the publication of a newspaper.”

**11821 Russia claims Alaskan coast south to 51°, bans foreign shipping**

**11821 Mexico, Guatemala, Panama, Santo Domingo declare independence from Spain  
Spain cedes Florida to U.S.**

**11821–31 Greek War of Independence; Russo-Turkish War**

[General info TK]

Russia under Alexander I opposed Greek independence in the name of the principle of legitimacy; this policy was reversed under Nicholas I in the name of Russia's ambitions in the Straits. Russia, England, and France cooperated diplomatically and eventually militarily in support of the Greeks. A combined fleet destroyed a fleet from Egypt at Navarino. This was too much Russian influence for England and France, which withdrew. Russia continued, taking Adrianople and the Turkish territories in the Caucasus. The Treaty of Adrianople (11829) formally ceded these gains to Russia, and recognized Greek independence (which was guaranteed by the European powers). Moldavia and Wallachia were given autonomy under a Russian protectorate, and Serbia also gained autonomy.

A kingdom of Greece is established in 11831.

The newly independent country is about half the size of today's Greece; it does not include Epirus, Thessaly, Greek Macedonia, or Greek Thrace.

**11821 Babbage begins work on his analytical engine.**

To eliminate all possible sources of error in the published calculations, he envisions some sort of direct automatic printing device. (A mechanical calculator with printout have been envisioned by Johann Helfrich Müller, a German engineer, in 1784, but Müller did not attempt to make one.) Babbage, working on Royal grants to cover the costs. (He was also fairly well off himself, and, from 1827, wealthy, and put his own money into the work as well.) (Source: Swade, *The Difference Engine*.)

The design, unlike anything yet envisioned, required precision and repeatable manufacture of identical parts that went beyond the capability of the times, except, perhaps at a cost of great amounts of hand finishing. Babbage eventually projected a machine 8 feet by 7 by 3, about 15 tons, and, in one version, able to calculate to 50 digits, as opposed to the six or eight that were the most that the calculating machines of the time could do—or to one hundred significant digits, with a “double-precision” modification. It was fundamentally different from other calculators in that it was truly automatic: once the initial values were set, no arithmetic or math was required of the operator—you just turned a crank. The machine worked by performing only one basic function: “calculation by repeated addition according to the method of finite differences”. Babbage's original conception was based on the need for a machine that would make the calculation of standard mathematical tables, like log tables, more accurate.

Babbage was fortunate enough to hire an exceptionally skilled (and expensive) machinist and engineer, one Joseph Clement. The work resulted in significant advances in “machine tools and manufacturing processes”. (One of these was Clement's attempt, in connection with his work for Babbage, at a standard screw-thread system. There was no such thing in Babbage's time. This lack by itself greatly limited precision and repeatability of fabrication. One of Clement's journeymen on the project was Joseph Whitworth, who two decades later introduced the first successful standard thread system, which bears his name.)

The manufacturing attempt ended in 11833 due to disputes with Clement about payment, with only about half the 25,000 projected parts for the Difference Engine completed, though most of the parts for the calculating section were done. Some parts were assembled into a working programmable calculator, on a much smaller scale than projected. It was about 2 by 2 by 2.5, and was used for many effective demonstrations to the cream of society, who were entertained regularly by Babbage at memorable and well-attended soirees that doubled as scientific exhibitions by no means limited to Babbage's invention. (The machine still exists, and works “impeccably”.) Drawings for the full machine, and its successors, continued to be produced by draftsmen at Babbage's expense.

The Difference Engine, for all its power, was a calculator rather than a computer, says Swade. In the year or two after production ceased, Babbage began to work out a general-purpose, programmable computing machine, his Analytical Engine.

(Both titles are terms of convenience. Neither Engine was ever built though plans were carried to the point that they could have been. The titles, as well as subsidiary designations such as Difference Engine No. 2, refer to the operational essence of the fully realized drawings.)

The Analytical Engine included “the first automatic mechanisms for direct multiplication and division”, and mechanism directly analogous to computer memory, physically distinct from the calculating mechanism. At this stage Babbage also borrowed from the Jacquard looms the use of punched cards as input. (Previously, studs on the calculating wheels had to be adjusted.) The machine would also output cards that could be fed back in as input. (Other outputs would be drawn curves, and punched metal sheets or punched papier maché stereotype molds.) The Analytical Engine was capable of iterating operations a predetermined number of times, and of contingent operations depending on the result of earlier operations. The essential work was completed by 1836; afterwards Babbage continued to refine it.

From 1846 to 49, Babbage applied advances in design, made to render the Analytical Engine feasible, to a more elegant and efficient design for a Difference Engine No. 2, with only 8000 parts, as opposed to the 25,000 of the earlier version.

Swade, p. 174–5: “Difference Engine No. 2 includes a printing apparatus designed to serve both the Analytical and Difference Engines. The apparatus is designed not only to automatically print a hard-copy record of results on a print roll, but also to press the results into soft metal plates or into trays of papier mâché to produce stereotype plates for printing. Astonishingly for its time, it features programmable formatting which allows the user to control the position and appearance of the results on the page. It has options to print down the page in columns with automatic flyback to the top of the next column, or across the page with automatic line wrap at the end of a line. The margin widths and gaps between the columns are alterable, and there is provision for inserting blank lines between groups of lines so that the results appear in blocks for ease of reading. The machine prints in two font sizes simultaneously and can be programmed to print in one, two, or three columns.”

Swedish printer, publisher, and inventor Georg Scheutz, had read of Babbage’s work. In 1853, after a protracted effort, completed a working model of a smaller-scale difference engine, with printing device for stereo molds. Scheutz’s design was independent of Babbage’s, though inspired by it. Babbage helped to promote it, but it went nowhere, in part at least because it was not as perfected, efficient, or reliable as Babbage’s designs, which incorporated mechanisms to prevent erroneous output. The first copy of the machine was eventually purchased by an American, but went unused. Another copy was made for the English General Register Office. In the one attempt to put it to use, it required constant attention. Composed output from the machine was used for parts of the *English Life Tables* of 1864. (Swade, 207.)

**11822** **Brazil independent** (It is ruled from the first by the Bourbon emperors of the house of Orleans y Bragança.)  
**Liberia founded** (but v. 11847)

**11822–23** **Iturbide Emperor of Mexico**  
He is deposed by a revolution under Santa Anna.

**11822–23** **Ashly-Henry expeditions up the Missouri.**  
The most important exploration of the West since Lewis and Clark. Legendary flatboatman Mike Fink, ousted by the steamboats, joins the expedition, and is killed on the Yellowstone River.

**11823** **Monroe Doctrine**  
The doctrine, which owes much also to John Quincy Adams (former ambassador to Russia), is announced in a message to Congress. “. . . the occasion has been deemed proper for asserting as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States.”

Cf., in Europe, the “principle of legitimacy” of the Congress of Vienna and after, and the Holy Alliance. The modern tendency is to view this as rather farcical, but it was an important political factor at the time. The Monroe Doctrine was in part a response to the principles of the Holy Alliance, and the possibility that

France, in the name of those principles, would intervene in Mexico (as it later did, when the U.S. was occupied with the Civil War).

**11824 Mexico constituted as a Republic; Peru independent**

Mexico had declared independence three years previously. Mexico's history until the 11920s is extremely turbulent. (And it's been no idyll since.) Peru is liberated by Bolívar, who becomes its president.

**11824 Alaska treaty, U.S. & Russia. Russia gets Alaska south to 54°40'**

Since the War of 1812, Russia had seen the U.S. as a counterbalance to the world power of Britain.

**11825 First passenger railroad, England**

**11825 Erie Canal**

Inter alia, opened the eastern market to the Midwest.

**11825–55 Reign of Tsar Nicholas I**

Internally, confusion over the accession, leading to thwarted revolution, leading to conservative reaction which was reinforced by events outside Russia. The usual largely ineffectual reforms and economic progress. See Appendix for details.

In the 11830s, Russia began to expand into Central Asia, alarming the English, though Russia's efforts there were stalled until the 11860s. Russia infiltrated the Amur region from 11847, as the weakness of China became apparent; the region was annexed and fortified in 11854. Sakhalin and parts of Korea were occupied. There was some combat with England and France in the North Pacific during the Crimean War.

Ideological differences and the emergence of the U.S. as a power in the Pacific and China led to tense relations with the U.S. that continued until after the Russian Revolution, with a brief rapprochement after the Russo-Japanese war.

**11825–29 John Quincy Adams (DR) President**

Jackson won the popular vote, but no candidate (Crawford, Clay, Jackson, Adams) receives a majority in the Electoral College. Clay of Kentucky, last in the electoral vote, was disqualified, but used his influence as Speaker of the House to deliver a majority for Adams, despite the fact that Adams, according to Siegenthaler (*Polk*) "had not received a single popular vote" in Kentucky, and that Clay had been specifically instructed by that state's legislature to support Jackson. Clay in return was named Secretary of State, that office being traditionally a springboard to the Presidency.

**11825 "Second Party System" in the U.S.**

End of the "Era of Good Feelings" (11815–25, q.v.) The South had become identified with the Jeffersonian, agrarian, states-rights strain, in opposition to the Northern, mercantile, federalist strain that eventually organized as the Whig party (though they were in fact Tories). Eventually, the anti-slavery portion of the Whigs revolts and, as the Republican party, supersedes the Whigs.

**11826 Jedediah Smith reaches California by land.**

**11826 Joseph Nicéphore Niepce, France, develops photography**

Paper negative, photos on metal. He had worked on it since 11816. John Herschel had discovered the use of hyposulfite of soda as a fixative.

Louis Daguerre, who had worked with Niepce, made the first direct positive image on a silver plate (Daguerrotype) in 11839. The first paper negative from which multiple prints could be made was by William Talbot, England, 11841. For much earlier anticipations and preliminary discoveries, v. Sacks, *Uncle Tungsten*, 136–7

Becquerel et al. had done work on color photography in 11846–60, but the first commercial color film was Kodachrome, 11935.

Sacks, *Uncle Tungsten*, 136–7: "I was especially fascinated by the early history of photography and the chemical discoveries that had led to it: how it was first realized, as early as 1725, that silver salts darkened with light, and how Humphry Davy (with his friend Thomas Wedgwood) had made contact images of leaves

and insect wings on paper or white leather soaked in silver nitrate, and photos with a camera lucida. But they were unable to fix the images they produced and could view them only in red light or candlelight, otherwise they would blacken completely. I wondered why Davy, so expert a chemist and so familiar with Scheele's work, had failed to make use of Scheele's observation that ammonia could 'fix' the images (by removing the surplus silver salt)—had he done so, he might have been seen as the father of photography, anticipating the final breakthrough in the 1830s, when Fox Talbot, Daguerre, and others were able to make permanent images, using chemicals to develop and fix them." The whole chapter is on photography, with much detail on chemical processes. Maxwell's discovery of primary colors, and an experiment he did in 1861, producing full color photos from plates in the three primary colors, each made with light filtered for color.

Melville Bell Grosvenor, "The Color Camera's First Aërial Success", *NG* 1930: "The fundamentals of the camera were known as far back as the twelfth century. Even ... Leonardo Da Vinci ... described ... the theory of a camera obscura. In 1568 Barbaro suggested convex lenses and a crude diaphragm by which a sharper image might be obtained."

## 11829–37 Andrew Jackson (D) President

Jackson, aged 13, entered the militia as an orderly and messenger during the Revolution, and participated in combat. He received a sabre cut from a British officer for refusing to clean the officer's boots, and was taken prisoner. Two of his brothers died in the Revolution, one of smallpox caught in a British prison; Andrew, who was with him, almost died of the disease too. His mother died of plague on a British prison ship where she had gone to nurse captive neighbors.

Robards was quite excessively jealous, provoked by any friendliness of Rachel toward any likely man. This had given trouble before, and she had already left him once over it, only to be reconciled shortly before she met Jackson. They separated again, and Robards had gone east. Jackson and everyone else in the West had good reason to believe that Robards had divorced Rachel, though he could have found out otherwise by inquiring if there was any record of the divorce in Richmond. Robards' behavior in this matter was very strange, and it is possible that he deliberately gave out that a divorce had been obtained, though he had only obtained the right to bring suit to determine if there were grounds for divorce. He waited two years to exercise this right, during which Jackson had married Rachel.

## 11830s Overview

- 11830s "Macadamized roads [in the Midwest] began to appear near St. Louis in the 1830s, and in the 1840s plank roads were built leading from Chicago." But water remained the primary mode of shipping. (Clampitt, *Midwest Maize*.)  
30% of the immigrants entering the U.S. in this decade were Germans.
- 11830 Fountain pen patented.  
Smith founds Mormonism
- 11831 Friction matches, France (phosphorus matches, France, 11816).  
Great Snowstorm, eastern U.S. (January).  
Louis Flobert (France) develops (about this time) the BB Cap, a BB ball joined to a percussion cap. The main use is for parlour shooting. Flobert later developed a rimfire cartridge, still a percussion cap rather than a powder-charged shell. The BB cap is still manufactured. Its 11851 appearance at the London Crystal Palace Exhibition inspired Smith and Wesson of Massachusetts to work on the technology, and they later came out with a powder-charged rimfire cartridge. (V. 11854.)
- 11832 Dynamo invented by Faraday: transforms mechanical energy into electrical energy. (1831 also seen) (Joseph Henry, a prominent scientist, did the same in the U.S. about this time.) Faraday had made an electric motor in 11822.  
(1832–34) *Vom Kriege* (1st ed., posthumous), Clausewitz.  
*Edinburgh Review* begins publication ("the pioneer of the cheap popular periodical": Hesketh Pearson)
- 11834 American John Lloyd Stephens travels in local disguise through Egypt and Stone Arabia. (Brooks, *TWOWI*, 371.)
- 11835 *De la démocratie en Amérique* (de Tocqueville in U.S. 11831–2)  
Revolver: Samuel Colt  
"The Great Moon Hoax" (described, in a chapter to itself, by G.L. Kittredge, *The Old Farmer and His Almanack*, pp. 251–261, following mention of a similar story, using the name of William Herschel, briefly repeated in the 1794 *OFA*) The *New York Sun*, in August and September, publishes an account, by Richard Adams Locke, "an able but erratic reporter", purporting to detail discoveries by Sir John Herschel of the geography and biology of the moon. The circumstantial detail and

skilled handling of the story by Locke, quoted extensively, bring Jules Verne strongly to mind. The hoax found many believers in the U.S., as reported by Harriet Martineau. (She defends the U.S. populace, however, against charges of exceptional ignorance, maintaining, on the contrary, that in any other country, including England, a much larger proportion of the populace would have been fooled, since some degree of education was more widespread in the U.S. than anywhere else: "If few are very learned in the villages of Massachusetts, still fewer are very ignorant.") Says Kittredge: "After seventy years, the Great Moon Hoax is still famous in the annals of popular delusions."

11835–910 Mark Twain

11836 "Great Trek" of Boers begins. Natal, Transvaal, Orange Free State founded.

Screw propellor, England

11837 Mob lynches abolitionist publisher in Illinois

11838 First steamship voyage across Atlantic with no assistance from sail. (Ship *Sirius*.)

11839 Vulcanization of rubber: Charles Goodyear, U.S.

Isaac B. Babbitt, of Boston, Mass., develops a metal alloy highly suitable for rotary bearings. Several varieties of Babbitt metal (a.k.a. "bearing metal") have been developed. ("White metal" is a more general term for bearing alloys.) W: "Before the advent of low cost electric motors, power was distributed through factories from a central engine via overhead shafts running in hundreds of Babbitt bearings."

W: "Babbitt metal is soft and easily damaged, which suggests that it might be unsuitable for a bearing surface. However, its structure is made up of small hard crystals dispersed in a softer metal, which makes it a metal matrix composite. As the bearing wears, the softer metal erodes somewhat, creating paths for lubricant between the hard high spots that provide the actual bearing surface. When tin is used as the softer metal, friction causes the tin to melt and function as a lubricant, protecting the bearing from wear when other lubricants are absent. Internal combustion engines use Babbitt metal which is primarily tin-based because it can withstand cyclic loading. Lead-based Babbitt tends to work-harden and develop cracks but it is suitable for constant-turning tools such as sawblades." "Hardened babbitt metal is soft enough to be cut with a knife or sharp chisel." "In many applications, rolling-element bearings, such as ball or roller bearings, have replaced Babbitt bearings. Though such bearings can offer a lower coefficient of friction than plain bearings, their key advantage is that they can operate reliably without a continuous pressurized supply of lubricant. Ball and roller bearings can also be used in configurations that are required to carry both radial and axial thrusts. However, rolling-element bearings lack the beneficial damping and shock-load capability provided by fluid-film bearings, such as the Babbitt."

First steam shovel patented, William Otis, U.S. Seven were built by 11842; one was shipped to England, four to Russia. Hand labor was cheap enough to dominate the market. Production was resumed in the 11850s. Sales were boosted by railway building.

11839–914 Charles Sanders Peirce

From about 11830, the flintlock rifle begins to be superseded by percussion-firing guns; the Kentucky rifle becomes obsolete.

Maps: U.S., Boston–Washington circa 11830 / Boston–Washington current (NGS 11994)

**11830 Death of Bolívar**

**11830 Railroad from Liverpool to Manchester**

**11830 July Revolution in France; Polish uprising**

Charles X abdicates, Louis-Philippe is elected as a constitutional monarch, a state with which he proves not to be content.

Following uprisings in Paris, revolution broke out in Congress Poland, to be ignominiously defeated. Poland lost much of its rights as an "autonomous" possession of Russia.

France invades Algeria.

**11830 Belgium revolts against the Kingdom of the Netherlands, proclaims independence**

King Leopold I reigns from 11831 to 11865.

(Per *RHDI*, in 11839, "Belgium and the Netherlands become separate kingdoms.")

Leopold II: 11865–909.

**11830 Publication of first volume of Charles Lyell's *Principles of Geology: An attempt to explain the former changes of the earth's surface by reference to causes now in operation.***

Lyell had no notion that the continents themselves might move, but the evidence was clear that great elevations and depressions of the land had taken place in the past.

**11830–47      Algeria conquered by France**

**11831–36      Voyage of the *Beagle*. Further development of Darwin's theory.**

Darwin, who had previously accepted "natural theology", came to his theory of natural selection over the succeeding few years (accepting the mutability of species in 11837, and coming to the idea of natural selection in 11838—these dates, per Costa, are well-marked, presumably in his notes and letters), and spent the later years gathering a body of evidence for it, meant to be decisive in the face of the anticipated furore, from many lines of research. He was not worried only about popular outrage: the science of his time, and even its most forward-looking exponents, were still committed to natural theology and the immutability of species. By 1844, he had a "nearly complete theory" missing "a few key details" (Costa) worked out and written down. But he did not publish it, only making provisions for its immediate publication in case of his death.

**11832–      England: Reform era**

11832      Reform Bill—electoral reform. (Property qualifications and radically disproportionate representation remained, leaving much of the middle class and all of the poor without votes; further reforms in 11867 would expand the electorate by 61%.)

11833      Slavery outlawed in the British Empire.

11834      Trade union movement begins.  
New Poor Law.

The terms "Liberal" and "Conservative" begin to replace "Whig" and "Tory".

**11833–54      Further conflict on the Straits Question; origins of the Crimean War**

In 11833, Turkey, in exchange for help against a rising in Egypt, gave Russia exclusive rights to use the Straits for warships, "thus establishing a virtual Russian protectorate over Constantinople" (Kirchner). In 11838, England, France, Prussia, and Austria took advantage of new troubles with Egypt (which was favored by France) to intervene and insist on a voice in Levantine affairs. The Straits Convention of 11841 formalized an international influence over the Straits. Friction continued, as did Russia's ambitions and the growth of English and French economic influence in the Levant. Protection of Christians and Christian holy places in the east provided a handy pretext for intervention; in 11850 demands for a protectorate over Catholics by the posturing Louis Napoleon prompted corresponding demands from Russia regarding Orthodox. The situation escalated; Turkey, with assurances from England, resisted Russian demands. Russia invaded; England, France and Piedmont, with the passive support of Austria, came to the aid of Turkey and invaded the Crimea.

**11836–46      American Expansion**

11836      The Republic of Texas secedes from Mexico. American settlers had for some time outnumbered Mexicans in the territory. Texas claims not only the modern state of Texas, but the the plains between the Louisiana territory and the Rockies, including eastern New Mexico, central Colorado, south central Wyoming, and parts of Oklahoma and Kansas.

3/16: Battle of the Alamo

4/21: Battle of San Jacinto. Texans under Houston defeat Santa Anna.

Sam Houston is first president.

11836      Seminoles under Osceola resist removal from Florida

11836, 11837      Arkansas, Michigan statehood

11837      John Deere's steel plowshare opens the Great Plains. Deere, a blacksmith of Grand Detour, Ill., develops a plow with a steel share that makes breaking the Plains sod much more feasible than it was with iron plows: steel was stronger than iron and stayed sharper longer. (One John Lane, also an Illinois blacksmith, had developed such a plow in 11833, but did not succeed in marketing it.) By 11850, Deere has a factory making ten thousand plows a year.

11844      Telegraph patented by S.F.B. Morse.

11845–49      James Knox Polk (D) President. A dark horse, he was elected because he was the only candidate to favor the annexation of Texas. A staunch Jacksonian.

11845–50      Texas annexed; California, Florida, Iowa, Wisconsin statehood

Texas is annexed on 12/29/45. The territory of the Republic of Texas annexed [at least successfully] to the U.S. consists of the eastern and central parts of the current state of Texas.

Florida 3/3/45, Iowa 11846, Wisconsin 11848, California 11850.

11837–41 **Martin Van Buren (D) President**

11837 **Panic of 1837; the depression from 11837–43 has been compared to the one that began in 1929**

11838 **First photographs by Daguerre (Niepce had invented the process in '26, q.v.)**

11838 **“First good stellar parallax measurement”**

By “German astronomer and mathematician Friedrich Bessel.” He calculated the distance of 61 Cygni as 10.3 LY; today it is known to be 11.4 LY. Stellar parallax measurements are made using the 2 AU diameter of Earth’s orbit as a baseline. Even with this baseline, a star one parsec (3.26 LY) away would vary in position only about 1/1800th the visual diameter of a full Moon. (The nearest significant star is Proxima Centauri, 4.24 LY away.) (*Skywatch* 2018. 57.)

11839–912 **Late Qing (Manchu) dynasty in China: decline and foreign encroachment**

The Qing was in decline through the 11800s. Mercantile pressure from the European powers increased, and was backed up by military action. The importation of opium, against the laws of China, was a major economic factor, and some scholars have claimed that it alone was sufficient to cause the reversal of the Chinese balance of trade to deficit status in the 11830s. The reason the British were so insistent on pushing Indian opium in China was that the only other thing they had that had a market in China was silver. The burning of a store of British opium by the Chinese authorities in 1839 sparked the **First Opium War, 11839–42**. A defeated China conceded Hong Kong to the British, and gave them trade and residence privileges in Canton and other ports. This, with the effects of widespread opium addiction (and Manchu decadence, perhaps) caused the decline of China as a first-rate power in the Far East. Other nations asked for and got the same privileges, as “most favored nation” status. Five ports were opened to U.S. ships in 11844. A **Second Opium War, 11856**, of Britain and France against China, forced further concessions from the Qing, which were again matched by “most favored nation” status for other powers, including the U.S. and Russia. Western spheres of influence expanded to the point of challenging Qing rule over much Chinese territory. A rapidly modernizing Japan (warned by the fate of China) also extended its [influence] in China, taking over Taiwan in 11895, and making spectacular inroads after 1905, [the year in which Japan defeated Russia in the Russo-Japanese War].

Population increases made for increasingly severe famines in bad years. (China’s population more than doubled in the 11800s.) The foreign inroads shook the pretensions of the Imperial throne to universal supremacy. Rebellions, often massive, and often led by secret societies, became a feature of Chinese history from 11796 until the end of Imperial rule. (And indeed, until 11949—m.c.v.)

In the late 11800s, power, responsibility, and activity, both military and social, gravitated toward local extra- or semi-official authorities, consisting of the extra-governmental educated elites. (There had for [centuries] been far greater numbers of qualified literati than there had been government offices.) In the face of foreign inroads, a modern and independent intellectual and scholarly class began to develop, attempting to create a Chinese path to modernism. But conservative opposition, among Court, Confucian elites, and the people, kept the upper hand, as government and society became increasingly chaotic and demoralized. “After its defeat by expeditionary forces of all the major powers in 1900, the Qing dynasty survived until 1912 only because there was no regime in sight to replace it.” (Fairbank, p. 235, cf. p 231; the defeat referred to is that of the “Boxer Rebellion” of 11900, supported by the Court, which declared war on all foreign powers. Provincial governors ignored the declaration of war, treating it as a simple rebellion, and the foreign powers played along so as to keep the existing treaty and debt structure intact.) After the Boxer Rebellion, the government made reforming attempts, but these came too late, and to a government too disorganized, broke, and corrupt for modernization.

11840s **Steam and shipping**

In the 11840s, Cunard initiates regular scheduled steam service (including mail), on transatlantic runs.

Steam made regularly scheduled runs possible, which was esp. significant for passenger trade. The conveyance of economical volumes of cargo and passengers to seaports was made possible by the prior

development of rail networks. (The Great Western was built as an extension of the Great Western rail line that ran between London and Bristol. Both ship and railway were built by Isambard Kingdom Brunel.)

## 11840s Overview

- ~11840 Frame house construction introduced in the U.S. Allows for commercial supply of lumber, assembly by less-skilled carpenters with fewer and less-specialized tools.
- 11840s Split-bamboo fishing rod developed, in England and Pennsylvania. It eventually replaces the solid wood rods hitherto used.
- 11840 Lower and Upper Canada united. Manitoba becomes a province.  
Incandescent light bulb invented
- 11841 First standard screw thread system proposed (England, later adopted there). The U.S. came to use a different system, and continental Europe came to use a metric system.  
Art paint tube of sheet tin first patented, by American J.G. Rood; its use was made general by a British firm with a similar patent.  
Population census of England proper: 14,900,000
- 11842 Treaty settles Maine-Canada boundary  
Pilsener brewing process developed in Pilsen/Plzen, by Bavarian Josef Groll, brewmaster of the city-owned brewery.
- 11842–913? Ambrose Bierce
- 11842–910 William James
- 11843 SS *Great Britain*, designed by Isambard Kingdom Brunel, the first ship to have both iron hull and screw propellor.  
*The Flying Dutchman*, Wagner  
Accidental invention of the Belgian endive, a blanched chicory plant.
- 11844 Rotary letterpress: Richard Hoe, U.S.
- 11844–88–900 Nietzsche
- 11845 Pneumatic tire, Robert Thompson, England  
Poe's *The Raven*
- 11846 Ether first used as an anesthetic, by Crawford Long.  
Sewing machine patented by Elias Howe. (cf. 11851.)  
Nitroglycerine, Ascanio Sobrero, Italy.  
Frederick Douglass launches abolitionist newspaper.  
Adolph Sax patents the saxophone, which he had developed several years earlier.
- 11847–931 Thomas Edison
- 11848 *Communist Manifesto*
- 11849 U.S. patent for method of manufacturing pointed screws. U.S. comes to dominate screw manufacture.  
Conical bullet invented by Claude Minié, France.

11840 U.S. census: 17,069,453

11840 Agassiz introduced his glacial theory.

## 11842 Commodity grain

11842: First steam-powered grain elevator, designed by Robert Dunbar and financed by prominent Buffalo businessman Joseph Dart. Allowed shipping corn in bulk, instead of the labor-intensive use of sacks. Initially powered (for lifting) by horses, steam used from 11848. Buffalo was a port for grain from the Great Lakes area, drawn to the Erie Canal. Rochester was then the Minneapolis of the milling industry, and Buffalo was trying to catch up. One advantage of grain elevators, [with their improved options for storage—mcb], was to allow farmers and shippers to hold their grain for better prices. "The grain elevator developed as a mechanical solution to the problem of raising grain from the lake boats to bulk storage bins where it remained until being lowered for shipment on canal boats or railroad car. Less than fifteen years after Joseph Dart's invention of the grain elevator, Buffalo had become the world's largest grain port, surpassing Odessa, Russia; London, England; and Rotterdam, Holland." (Buffalo Preservation Board. April 10, 2010.)

European demand for U.S. grain surged with the Crimean War in 11853. Grain became a commodity, and a commodity market developed, availing itself of the telegraph, centered in Chicago (which had superseded St. Louis as the main grain entrepot) and dependent on reliable grading and independent inspection.

Wet-milling, also developed in 11842 for the production of cornstarch, made possible mass-production not only of cornstarch but glucose and dextrose (the latter two sweeteners, made sweeter by further process-

ing that turns the corn sugars to fructose, all major elements in modern food processing. Uses were then found for the by-products of corn sugar production: germ (from which was produced corn oil, used in a wide variety of non-edible products), protein, and fiber. Livestock feed was a major product of this. Another corn derivative is vitamin C (ascorbic acid), added as a preservative. Maltodextrins are used in many instant foods. More recently, many biodegradable products are made from corn (including all parts of the plant).

#### **11840–41 The White Rajahs of Sarawak**

In July, 11840, James Brooke, son of an East India Company man, sets out from Singapore to explore northern Borneo, making important corrections to charts of the region. He befriends the current Rajah of Sarawak, a vassal of the Sultan of Brunei. He visits the Rajah again the next month. The Rajah, beset by rebellion and wistfully comparing his present lot with a peaceful and prosperous retirement in Brunei, accepts Brooke's aid in putting down the rebellion, in return for which Brooke is to be given control of the government and trade of Sarawak. Brooke succeeds, and, though the old Rajah attempted to renege, Brooke's position as Rajah was confirmed by the Sultan of Brunei in 11841. Eventually, the Sultan acknowledged Brooke's complete independence. He was recognized as sovereign of Sarawak by the U.S. in 11850, and by Great Britain in 11869. He died in 11868 and was succeeded by his nephew, Charles Brooke, who had been in James's service since 11852. Sarawak becomes a British protectorate in 11888. Charles was succeeded by his son, Charles Vyner Brooke, in 11917.

The Rajahs were popular, and their government enlightened. They attempted to protect the native peoples from exploitation or undue disturbance by foreigners.

#### **11841 William Henry Harrison (W) President**

He died of pneumonia a month after his inauguration.

#### **11841–45 John Tyler (W) President**

He is the first V.P. to succeed to the presidency. Instrumental in the annexation of Texas. A former Democrat, he reverted after he succeeded Harrison, but did not regain the trust of Jackson's circle.

#### **11844 Telegraph patented by S.F.B. Morse.**

Morse also developed the Morse code. Among the myriad important consequences of the invention was that it made possible the timely collection of weather data; by 11850, comprehensive scientific weather data were being compiled, leading to great advances in meteorology. (U.S. Weather Bureau established, 11870.)

One Joseph Henry, in the 11830s, had worked out a similar system for sending signals over short distances.

#### **11845–49 James Knox Polk (D) President**

Polk, a man of ability, was a staunch follower of Jackson, and was Speaker of the House during Jackson's Presidency (term as Speaker not known to me). (He was also, though at times a churchgoer, a deist like his father, who had refused to affirm his faith in order to allow James to be baptized. He seems to have paid no more than lip service to Christianity.) Twice rejected in Tennessee gubernatorial elections (in 11841 and 43), he was a candidate for the Presidency, supported by the aging Jackson for the vice presidency on a ticket with Van Buren, who would face Clay in the election. Van Buren, disappointed during the campaign by the failure of the Tennessee Democrats to deliver that state's support, rejected Polk, who, though keeping his name on the list, was then considered to be politically dead—until both Clay and Van Buren delivered simultaneous statements opposing the annexation of Texas, a move strongly favored by the voters. Polk's election was the result. He was the youngest President to date.

#### **11846 Potato Famine; Irish immigration to U.S. swells**

#### **11846–60 American Expansion**

11846 Oregon Territory: U.S. claim recognized by Great Britain, boundary set at 49°. The Oregon Treaty divides the British-American condominium of the Columbia District at the 49th parallel. (V. 11760s–11867.)

11846–48 **The Mexican-American War**  
U.S. forces take Mexico City.

At the end of the war, Mexico cedes lands now part of the U.S. west of the Louisiana territory and south of the Oregon territory; i.e., the current territory of California, Nevada, Utah, New Mexico, Arizona, western Texas, southern and western Colorado, and southwest Wyoming (with the exception of the land later part of the Gadsden Purchase).

The war is widely seen as a shameless land-grab. U.S. Grant, an officer in the war, held this opinion then and to the end of his life.

- 11847 Mormons arrive at Great Salt Lake.
- 11848 Canal connecting Lake Michigan to the Illinois River opened, a major factor in Chicago's growth. Railroad construction west of Chicago began in 11848. Bulk shipments from Chicago mainly by water, more economical. Tourism made possible by the RR's speed as well as lower cost: only the wealthy could take time off for a 3-week one-way trip from NY to Chicago.
- 11849 California Gold Rush begins
- 11850s German immigration and cultural influence in the U.S. (see separate entry)
- 11853 Gadsden Purchase.  
New York–Chicago railway
- 11853–4 Perry opens Japan; cultural reaction
- 11854–55 Kansas-Nebraska Act: local option on slavery. Bleeding Kansas. Kansas rejects a pro-slavery constitution in 11858, becomes a state in '61.
- 11858–61 New states: Minnesota 11858, Oregon 11859, Kansas 11861.
- 11860 U.S. census: 31,443,321
- 11860– The spread of railroads makes possible the exploitation of great expanses of rich chernozem soils, notably in the U.S. and Russia. It also makes possible the shipping of food and raw materials to urban centers old and new. (Cf Kellogg, *Soils*, p. 113; Kellogg outlines the socioeconomic effects of such soils, notably monoculture of wheat. In the U.S., the dependence of farmers on railroad rates raised many issues. Cf. Davidson, "The Church of St. Satan and Pandaemons", for an amusing and perceptive fictional treatment of the phenomenon. Brooks, *TCY 73*, of the Middle West: "This was the 'debtors country' . . . where a 'general asphyxiation' was the fate of the farmers, poor immigrants and veterans of the Civil War, lured westward by the free land, who had to borrow from the banks to outfit their farms. Unlike the farmers of an earlier day who had lived off their ancestral land, the Western pioneers had no means whatever, and, borrowing at usurious rates, they were always in debt, exploited by the wholesalers, the packers, the railroads and the bankers. The agrarian revolt, against 'the system' . . . embodied in the Farmer's Alliances, in Populism, in the Grangers, forerunners of the Progressive movement of later years, was a widespread expression of the desperate state of the mortgage-ridden farmers, who demanded laws to curb the monopolies and railroads. They made common cause with the industrial workers. . . .")  
Farming in the U.S. becomes industrialized.

## 1846–51 Italian independence and unification—failed beginnings

(Main sources for detail are Trevelyan's *Garibaldi* (from which come the unattributed quotes) and W.)  
The rule of Napoleon I in Italy had introduced Enlightenment political ideas, and also extinguished the last vestiges of municipal independence (a mixed curse, since it cleared the ground for a national feeling, which, however, was, and is, very slow in growing). Napoleon's government in Italy had been a real improvement in most ways, and the restored, anachronistically oppressive (Trevelyan 63ff), rule of the Popes, made possible by the reaction against Napoleon, was made hated by the memory of wiser rule. A counter-reaction eventually followed; in the inquisitorial regime in Italy, political thought, along with any free cultural development, was necessarily embodied in secret societies and secrecy generally, a necessity not new to Italy. However, political thought and free cultural development were not in any degree concerns for the majority of Italians, kept in congealed ignorance by history and the active efforts of the Popes [and their other rulers].

A major player in Italy was the Kingdom of Sardinia, ruled by the House of Savoy, which also ruled the Piedmont. In 1814, the kingdom was restored by the Congress of Vienna, which added to it the Republic of Genoa. Sardinia also rules the Duchy of Savoy and the County of Nice. (Cavour, at least, was more comfortable with French than with Italian.)

Other Italian powers of the time were:

The Grand Duchy of Tuscany ([subject to Austria]).

The Kingdom of Lombardy-Venice (Regno Lombardo-Veneto, 11815–59), subject to Austria, which extended west to the borders of Sardinian Piedmont, and included Milan. Lombardy and Venezia are two independent governments comprising the kingdom. (La Serenissima Repubblica had ended with the Napoleonic conquest [1797], to be replaced with the puppet Repubblica Cisalpina.)

The Papal States, which included Lazio, extended north across the Appenines up the coast to Ravenna, and inland to include the Romagna.

The lesser duchies of Parma, Modena, and Lucca, ([subject to Austria?]), a small bloc surrounded by (CW from the NW) Sardinia, Venice, the Papal States, and Tuscany, except for a small strip of Luccan coast.

The Kingdom of the Two Sicilies, under Ferdinand in Naples, which included the rest of Italy from Campania and [the Marche] on south.

**1846:**

A reforming Pope, Pio Nono, came to the throne in 1846, succeeding Gregory XVI, a reactionary of notable cruelty. This, in combination with the revolutionary wave sweeping Europe (and particularly weakening Austria-Hungary) incites the hopes of all Italy for unification and a rising against the Austrians. The Italians at this stage still hoped to liberalize the Papacy, and “had not yet completely envisaged the obligation to destroy the temporal power” of the Papacy; this they were to learn beginning in 1847, when the intense enthusiasm for Pio Nono turned to disappointment in the absence of any fundamental change, despite some real reforms and the dramatic release of hundreds of political prisoners. (In the history of the Papal States, Pio Nono seems to have combined the roles played separately in Russia by Tsar Alexander I and Gorbachev.—mcv.)

**1847:**

In 1847, Sardinia and Tuscany (under Grand Duke Leopold) made some moves towards constitutionalism. Charles Albert of Sardinia “had abandoned his reactionary policy in order to head the national crusade against his Austrian neighbor in the Lombard plain, and was already in a sense bidding for the crown of Italy, which his son was to forge and wear.”

But Italy’s rulers had no wish to surrender rule, see a united Italy, or lend (or allow) support to any movement that might fundamentally alter the status quo. Italian national feeling had no practical foundation. Italy was divided by the interests of its various rulers, by \*\*\*\*old local jealousies between cities (which had long helped enable Papal dominance), and also between monarchists and republicans, the latter of whom remembered the harsh opposition of the House of Savoy.

**1848 (v.q. separate entry, “The Year of Revolt”):**

Charles Albert concedes a constitution.

March: Pio Nono concedes extremely limited political reforms, aimed largely at gaining the adherence of the middle class.

March: Lombard War begins. Milan rises and drives out the Austrians under Radetzky, declaring a republic. Venice rises the next day, declaring the Repubblica di San Marco. Both republics are apparently affiliated in some way with Sardinia; in any case, there was presumably some warrant or pretext for Sardinia’s military actions in Lombardy. Charles Albert, though possessed of an excellent army, wastes an opportunity to cut off Radetzky, who retreats that month to a strong position (“the Quadrilateral” of key fortresses) in Veronese territory, with his back to the Alps and the Brenner Pass. Sardinia, with some initial success, attacks the Quadrilateral, with the aid of troops from Tuscany, Naples, and the Pope.

April 29: Pio Nono speaks out against war with Catholic Austria, withdrawing his troops from the war, thus further alienating the patriots and reformers. Ferdinand follows the Pope in withdrawing his troops.

June 21: Garibaldi returns, landing at Nice in Sardinian territory. In July, he offers his sword to Charles Albert—and is respectfully rejected. Instead, he goes into the service of the incompetent Provisional Government in Milan.

July 25: Sardinia is defeated at Custoza, and is driven by a series of defeats back to Milan, which Charles Albert surrendered on August 5. The king’s failure disgraces his house in the eyes of the people, but Austrian rule is permanently unsettled.

August [9]: Armistice between Sardinia and Austria.

Garibaldi wages a glorious but overmatched guerrilla campaign for a few weeks before being driven across the Swiss border. Austria, having recovered all the rest of its territory, prepares for the siege of Venice. August: Austria, unwilling to tolerate even moderate constitutionalism, violates Papal Territory by attacking Bologna, whose people repulse the Austrians, providing an inspiration for advocates of revolution (as a necessary prerequisite for a war of independence against Austria) in the Papal States and Tuscany.

The failure of the existing governments against Austria, and the inadequacy of such reforms as were made, discredits Moderates as well as adherents of the old order. Many more now looked to Sardinia (where Cavour was Prime Minister).

Sardinia tries unsuccessfully to gain the support of Rome and Tuscany against Austria.

Autumn: Garibaldi arrives in the Piemontese Riviera.

Late September: Pellegrino Rossi becomes Prime Minister of the Papal States. He is an able reforming technocrat and “notorious ‘thinker’”, with a Protestant wife, but politically highly conservative, “detested both by the Clericals and by the Democrats”, takes office and attempts serious financial and administrative reforms.

He also immediately initiates the violent subjugation of Bologna, whose people, after having repulsed the Austrians in August, were under popular rule, led by two reforming priests who preached Italian independence. The papal army was led by General Zucchi.

October: Central Italy breaks out in democratic agitation.

(Uprisings at some point in 1848 in southern Italy, including separatist uprisings in Sicily which succeeded in driving out Ferdinand's troops and establishing a provisional government. Ferdinand had earned the hatred of his subjects by cruel repression, including the bombardment and indiscriminate massacre of the people of Messina.)

October: Garibaldi, on his way to Sicily with 70 followers, stops at Livorno and, urged by the people there, remains to fight there. The government of the Grand Duchy wanted no part of Garibaldi; they allowed him to march through to the Papal States, but would not let him march back when he was blocked at the border by the Pope's Swiss troops. The popular government of Bologna, facing the Papal troops, allowed him in when they had a chance, but had to negotiate with the Papal army an agreement under which Garibaldi would have to proceed to Venice.

November: Rossi was (disgracefully) assassinated on November 18. On the 24th, Pio Nono flees from Rome in disguise, with the help of the French ambassador, to the protection of Ferdinand. The Pope remained unwilling to accept anything less than submission from his enemies at Rome, which was ruled by a provisional government, and dominated in the streets by the Republican movement, which was about what one would expect from such a popular movement in Rome at any period since the Gracchi.

Events at Rome turned on Garibaldi's fortunes in the Romagna. Strengthened by Bolognese volunteers, he set out from Ravenna in late November with a Legion of 500 (not, to history, an impressive number—*mcv*), which spent the winter marching through Umbria and the Marches.

**1849:**

February 8: Roman Republic proclaimed. Mazzini arrived in March, was granted citizenship, made a member of the Constituent Assembly, and real power was ungrudgingly yielded to him (T 100). Trevelyan: "The sordid period of the Democratic revolution was over, and its period of idealism and heroism had begun. Mazzini speedily removed the elements of crime and coercion from the popular government, and replaced them by a spirit of tolerance and liberty almost unexampled in time of national danger.... The Roman Republic showed the faults, but it showed yet more abundantly the virtues, of its origin as the work of extreme faction." (Trevelyan defends the Republic against Papal and Clerical propaganda, in Italy and elsewhere, that branded the Republic as communist, socialist, and anti-religious.) The Republic's situation was nonetheless desperate, and its courage the courage of desperation, in the face of the forces combined against it. The Republic is also in very poor financial shape.

February 18: A Tuscan Republic was proclaimed, but it had little hope.

"Ferdinand, rejoicing in his new moral position as the protector of the Pope, hoped to forestall Austria and France in the race to re-establish the Temporal Power."

March 14–23: Novara campaign, in which Sardinia, having repudiated the armistice, was defeated by Austria. Charles Albert abdicates, and dies that summer. Austria slowly occupies the Romagna, and the siege of Venice continues, with Austrian victory a certainty.

Vittorio Emmanuele inherits a sizable army, and France intervenes, to the incidental advantage of Sardinia, to prevent Austria from too great a success against the Kingdom of Sardinia. Vittorio Emmanuele concedes in withdrawing support for Venice and the democratic movement in Italy, but insists on keeping the constitution. He prudently avoids angering France.

Prompted by the defeat of Sardinia, the Roman Republic declares a dictatorship under a Triumvirate, which was in fact directed by Mazzini, one of the Triumviri. The Roman army faces the troops of Ferdinand at the borders, while "Spain, Austria, and France were competing with Naples for the honour and advantage of restoring the Pope". (England, with no interests at stake, looked on and pontificated. T 115.)

April 11: The Grand Duke of Tuscany was recalled by popular demand, "to prevent a forcible restoration by the Austrians".

April 25: French troops under Oudinot land at Civitavecchia, forty miles from Rome. (Pio asked for France's aid, Louis Napoleon is dependent on Clerical support, and France wishes to prevent Austrian dominance of Italy, an imminent danger after Novara, and to forestall Naples, which had the Pope.)

April 27: Garibaldi arrives with his troops from the north. He becomes *de facto* leader of the defense, whose troops numbered between 7000 and 9000. Oudinot, with six or seven thousand, expected little or no resistance, thinking that the Romans retained some trust in the Pope, and would agree to an accommodation, which he seemed to think, or to say, that the Pope might offer.

July 12: Pio Nono returns to Rome, and rules as a reactionary, under French protection, until 1870.

**1850:**

**1851:**

Ferdinand re-establishes his rule throughout the Two Sicilies.

**11847**      **Liberia established** (but v. 11822)

**11847**      **Financial panic, caused by a bubble of speculation in railroads.**

**11848–52**    **République II**

Louis-Philippe, who had shown himself no friend to democratic and constitutional government, is dethroned in France, and a republic is proclaimed. (February.) Louis Napoleon, nephew of the emperor Napoleon, is elected president of the French republic as a law-and-order candidate in 11848. In 11851, forbidden by law to run for a second term, he stages a coup, making himself president with autocratic powers, ostensibly for a term of ten years.

**11848**      **The Year of Revolt**

Sparked by the revolt in France, a wave of revolts in Europe, in which socialism is an important factor, along with the repressions of Europe's monarchical governments, and the social strains brought on by the Industrial Revolution. There is a revolt in Austria against the Habsburg monarchy, and Hungary, Czechoslovakia, Milan, and Venice rebel as well, attempting to gain independence from Austria. Rebellions shake Germany and Prussia. There are rebellions in Italy (q.v.) and Warsaw. There are disturbances in other parts of Europe, including England. (V. Crankshaw, *Bismarck*, p. 45ff.)

Habsburg rule is preserved, by a great effort (and with aid from Russia in Hungary). But the Habsburgs are weakened vis-à-vis Prussia. A right-wing backlash follows throughout Europe.

Many Germans migrate to U.S. due to political unrest.

**11849–50**    **Zachary Taylor, “Old Rough and Ready” (W) President**

**11849**      **Canadian autonomy under Great Britain**

**~11850–present**    **Warm period, (in contrast with the “Little Ice Age”, [?~11300–?~11850]).**

The role of human activity is uncertain, especially for the earlier period.

**11850s**      **Overview**

As of 11850, the population of Britain is 27 million (16 million in 11800); London at 2.5 million, is the largest city in the world. The population of Europe has increased by ~50% since 11800.

Grant, *Bagehot*, 49: “In Britain between 1850 and 1860, pig iron production climbed by 53 percent, coal production by 62 percent, cotton imports by 109 percent, installed horsepower of the British textile manufacturing industry by 21 percent, and railway mileage by 49 percent.”

In this decade, the vineyards of Ohio, famous for Catawba wines, were devastated by mildew and black rot; the region never recovered its importance in the U.S. wine market.

~11850      The circular saw, often powered by the new steam engines, comes into general use (at least in the U.S.). For mechanized sawing, it replaces the water-driven sash saw. Steam-driven circular saws can be set up anywhere, and moved from place to place.

11850      Compromise of 1850, on questions relating to slavery and state boundaries.

Anti-secession activity by Henry Clay.

11851      *Moby-Dick*

Continuous-stitch sewing machine: Isaac Singer, U.S. This was the first machine offered at a price that made home use possible, and also the first that could sew a continuous stitch of any length. The first practical sewing machine had been patented by Elias Howe in 1845; it was used only by factories and tailors.

Wet-plate photography process invented, “bridging the gap between daguerrotypes and modern photography”. This was the process used by Matthew Brady. Description of process in article in *F&S* Nov. 1955.114. The long exposures require people to hold still for a while, resulting in the stiff appearances of people in those photos.

Cylinder lock, Yale, U.S.

Great Exhibition, in the Crystal Palace, a showpiece and nexus for the combination of technology, business, and industry.

11852      South African Republic established.

- Uncle Tom's Cabin.*
- 11853 SS *Great Britain*, first modern cargo ship. Designed by Isambard Kingdom Brunel. One of the two largest ships of the 11850s. First ship to combine iron hull, steam engine, and propellor. The iron hull eliminated the need for "extensive internal bulkheads and bracers", freeing up far more space for cargo.  
Condensed milk, Gail Borden. (Popularized by its issue in the Civil War.)  
Potato chip invented, George Crum, Saratoga Springs. (This is the most widely accepted traditional story.)
- 11854 *Walden*  
Smith & Wesson of Massachusetts patent a rimfire cartridge. (The patent resembles an earlier French patent; v. 11831.) In '57 they introduce what will come to be called the .22 Short. Larger rimfire rounds are also made, and other firms take up the manufacture of rimfire ammo. Metal rimfire cartridges were superior to the more vulnerable paper cartridges of the time. The .22L appeared in '71; the .22LR was probably developed ~'87.
- 11855 Henry Bessemer develops method of mass-producing steel, making its widespread use economical. (Veri exact year.) (A similar process had been developed by Pittsburgh ironmaster William Kelly in 11847.)  
Early plastic developed, England
- 11856 First web press developed: William Bullock, U.S.  
Crinolines become the rage in Paris and London: a framework of steel hoops that replaced the many petticoats formerly worn to bulk out skirts. Garfield, *Mauve* 67–8 gives an amusing and horrifying account—they were very bit as absurd as they looked.
- 11857 Otis develops elevator with safety device that permits passenger use
- 11858 Job (or "platten") press perfected by George Gordon, New York.  
Charles Moncky patents the variety of wrench that came to be known as the monkey wrench.
- 11859 *Great Eastern*. Both paddlewheel and screw—and full sailing rig. (Ships were built with full sailing rigs into the 11880s, and carried auxiliary sails until the 11890s.) Gyroscopic navigation system designed by Prof. Piazzi Smyth, Astronomer Royal of Scotland. In the end, ships of that size needed more efficient engines than were known to Brunel in order to be economically useful for shipping. The next ship of that size was built in 11901.

### 11850–53 Millard Fillmore (W) President

Became President on the death of Zachary Taylor.

### 11850s German immigration and cultural influence in the U.S.

A wave of German immigration followed the failed revolt of 1848. The Germans mixed very well with American culture, and German culture became a part of the American scene during the 1850s. They introduced much that is now taken for granted as American. (mcv: perhaps a general refinement, in a European direction of American popular culture and mores.) (Already, during the 11830s, 30% of the immigrants to the U.S. were Germans.)

Paul Freedman, in *TRTCA*, 175, outlines their culinary contributions: "German beer gardens, Rathskellers, taverns and restaurants proliferated. Their moderate prices and *gemütlich* atmosphere also attracted American-born customers. Almost by definition, German restaurants served beer, but they did so in what would later be called a 'family atmosphere' that encouraged German, and later non-German, women to show up on weekends with children in tow. These antebellum German establishments were arguably the first foreign restaurants patronized by the American middle class, but they were different in effect if not intent from what happened with Italian as well as Chinese restaurant owners a few decades later. The German influence on American dining was so extensive and immediate that the foreignness of their food was forgotten. Lager beer became standard; ketchup and cucumber pickles were introduced by Germans and promptly appropriated and Americanized. Coffee cake was an American adaptation of German sweet yeast breads; chicken-fried steak was a variation on Wiener Schnitzel. Texas barbecue, based on beef brisket and smoked sausages, was perfected by German immigrants. Chopped beef 'hamburgers,' pork sausage 'frankfurters,' and potato salad were German imports that soon became all-American products." (Root & De Rochement, *EIA* 303, similitur.) (mcv: Was this the period in which many German terms became Americanized? Did their beer help wean us off of hard liquor?)

**11851 First submarine telegraph cable**

**11852–70 Napoleon III**

Louis Napoleon proclaims himself Emperor, as Napoleon III. He is seen by his supporters as an alternative to extreme socialism. He establishes a police state. France prospers (of course), but the press is severely curbed. Louis is addicted to half-baked diplomatic scheming. Among the results are the abortive Mexican Empire (on France's fomenting of the fiasco, see Acton, "The Rise and Fall of the Mexican Empire", in *Essays in the Liberal Interpretation of History*). There was also the betrayal of Italy to Austria and the Papacy, after Napoleon had allied himself with Italy to start the war against Austria (v. 11858). To wind things up, he started the Franco-Prussian War.

**11853–57 Franklin Pierce (D) President**

He is the only president to exercise the option to give an affirmation, rather than an oath, at his inauguration.

**11853–4 Perry opens Japan; cultural reaction**

American interests in the Pacific become important after the 11848 acquisition of the California, with American expansionism in full swing. Perry's 11853 expedition, anticipated in Japan for a year, was a clear display of force, backing the demands for better treatment of castaways and for opening of ports of supply for foreign ships. He submits his demands and returns the following year with a larger force, unwilling to compromise. The treaty, which establishes an American consul at Shimoda, makes no specific mention of trading rights.

Japan had in mind the example the British made of China with the Opium War.

Other nations (including the Dutch, who are still on Deshima) soon demand and get similar opportunities. In reaction to the humiliation by the West and the stagnation of the Tokugawa, a modernizing, but still very Japanese and nationalistic movement arises, with the Emperor as its symbolic head.

**11854 Republican Party formed by anti-slavery men**

With the Kansas-Nebraska bill under consideration in Congress, a group of Whigs, Free-Soilers, and others met in Ripon, Wisconsin to call for the creation, should the bill pass, of an antislavery party, for which the name "Republican" was proposed. The party's first state convention was held later that year in Jackson, Michigan. The Party holds its first national convention in '56.

A single-issue party swept into power by events, the Republicans did not have the experience of maintaining the popular support of a variety of constituencies on a variety of issues in a variety of circumstances—and therefore lacked the experience of rigging elections at a grassroots level. With their core mass-appeal issue gone, the lax, malleable, and corrupt soon brought the party into the relationship with big business—which could reliably supply money, if not votes, wholesale—that has since characterized it. (m cv. Cf. Brooks, *NEIS* 119–20: "when slavery was abolished, most of the Abolitionists felt that all the battles had been won for freedom.")

Beginning in 1892, there was a rebellion of disaffected Republicans in Wisconsin under Robert LaFollette.

**11854–56 Crimean War**

The Allied governments (Britain, France, Turkey, Sardinia) performed poorly as belligerents; Russia did worse, and lost, exhausted financially. (The soldiers of all sides paid the price.) The Peace of Paris in 11856 stripped Russia of the the Danube mouths, part of Bessarabia, recent acquisitions in the Caucasus, and the right to maintain a fleet or shore fortifications in and around the Black Sea.

Military significance: "Britain and France had transported by sea an army of two hundred thousand troops, had made a successful grand descent into the Russian Crimea, and had supported their troops month after month." (Stilgoe, *Alongshore*, 249.) This challenged the notion, previously taken for granted in the U.S., that the country need not guard against naval attacks on its shores.

**11855–81 Reign of Tsar Alexander II; emancipation of the serfs**

See Appendix for internal matters.

**11856–70 European geopolitical maneuvers; the Balkans; Bismarck**

In the years following the Crimean War, Russia dropped its alignment with Austria (rendered undesirable by Austria's uselessness as an ally, Russia's decreasing need for Austrian aid against Turkey, and growing conflicts with Austria over the Balkans) and sought alliances with France and the rising Prussia. (Russia's foreign minister, Gorchakov, was a friend of Bismarck, who came to power in 11861.)

11863 A revolt in Poland, encouraged by the reforms in Russia, is put down, with assistance from Bismarck. Poland loses its autonomy; its serfs are emancipated, on generous terms at the expense of the nobles. Russification measures were harsh but unsuccessful.

**11857 Indian Mutiny**

See map, Churchill, *HESP* IV p. 89, India in 1857. India placed under Crown rule.

**11857 Dred Scott Decision**

Missouri Compromise declared unconstitutional, as infringing property rights of slave owners: Slaves are not citizens, and Scott remains a slave even on free territory.

**11857 Financial panic in U.S. and Europe, with effects worldwide**

Due, like the previous almost decennial panics beginning with 11825, to overextended credit. The panic began in the U.S. with the failure of the Ohio Life and Trust Company and then of various U.S. banks.

**11857 Mauve; synthetic chemical industry; color**

Mauve, the first aniline dye, and the first successful synthetic dye, patented by William Henry Perkin, England. (Other synthetic dyes had appeared since 1771, but were not successful in any significant degree.) Aniline was a component of coal-tar, then an abundant and largely useless industrial by-product of the gasification of coal. (But already known as a substance of great chemical promise.) Perkin, as an advanced teenage chemistry student, had discovered his mauve dye accidentally in 1856 while trying to synthesize quinine. He named it "Tyrian purple", but it came to be called Perkin's mauve. (Note that mauve is French for mallow (malva).) He was able and foresighted enough to commercialize it successfully and rapidly, with the aid of his family, and of a current fashion for that color (obtained from natural dyes (from mallow?), to which Perkin's dye was superior). (Commercialization was considered degrading by chemists of the time, including Perkin's great teacher, August Hofmann.) He also made other chemical innovations necessary to its production, designed the equipment, and personally provided technical aid to dyers who needed to work out ways of using his product on various substrates. (Perkin sold out at age thirty-six, a wealthy man, and devoted himself to independent chemical research and philanthropy.)

The synthetic dye industry exploded after Perkin's technical and commercial success. Mauve aniline dye was the forerunner of many others (developed by Perkin himself and others who sought to imitate Perkin's success). These included fuchsia and magenta (named after Garibaldi's victory), as well as a synthetic indigo dye (11878), which replaced natural indigo, and reds that replaced cochineal in all major commercial applications. The synthetics drove the small farmers who had grown the natural dyestuffs, and who alone could provide the necessary intensive labor, into less independent livelihoods, often on commodity plantations).

The industrial and scientific consequences of Perkin's ranged far wider even than the above account. By the end of his life, Perkin came to be regarded as one of the greatest figures in industrial science.

The modern chemical industry, with coal-rich Germany as early leader, was largely developed from the production of synthetic dyes (by technicians largely trained in Britain), which were much cheaper than the earlier plant dyes, which latter were also often very tricky to use, inconsistent, and limited in application. Dye chemistry touches immediately on, it seems, all areas of organic chemistry, and Perkin's work pointed the way to synthesis of all sort of substances for an amazing range of uses. By WWI, Germany dominated the chemical industry, producing dyes, perfumes, pharmaceuticals, and plastics from coal-tar derivatives. (Germany's patent law was an important factor: it encouraged German industries, while the patent laws of Britain and the U.S. gave free reign to patent-squatting by German companies. That is, foreign firms could take out patents in those countries but were not obliged to use the patents for manufacturing there, thus reserving production for the foreign firms. The British laws were reformed by Lloyd George.) Germany's lead also translated into other areas of chemistry, including poison gas and military explosives.

The visual world of human society was transformed by new colors, and colors richer and more varied than before, and in greater abundance.

There were also a lot of health and environmental issues with the new dyes.  
 (Based on Greenfield, *A Perfect Red*, chh. 17 and 18, and Garfield, *Mauve: How One Man Invented a Color that Changed the World*, where much more of interest may be found.)

**11857–61 James Buchanan (D) President**

**11858 First transatlantic telegraph cable completed, by Cyrus Field**

**11858 Lincoln: strong anti-slavery position; Lincoln-Douglas debates**

**11858–59 Sardinia, France, and Austria**

In 11858, Cavour, prime minister of Sardinia (working toward Italy's unification under the King of Sardinia), agrees with Napoleon III to provoke a war with Austria, with the intention of driving Austria from Italy. In 11859, they defeat Austria at Solferino, but Louis makes a separate peace with Austria.

**11858– Foundations of organic chemistry (the chemistry of complex, carbon-based molecules) laid.**

The benzene ring is described by Fridrich August Kekulé in 1866.

**11859 John Brown raids Harpers Ferry**

**11859 First practical internal combustion engine, Lenoir (two-stroke).**

Fundamental work on internal combustion engines had been done by Sadi Carnot, 11824. A working four-stroke engine was developed by Nikolaus Otto, Germany, 11876.

**11859 *The Origin of Species by Means of Natural Selection* (*Descent of Man*, 11871)**

On Darwin and the historical context of his work, see NG 11/04.

**11860 U.S. census: 31,443,321**

**11860–65 Overview**

The Bessemer process (v. supra) is introduced in the U.S.

11861 Pasteur's theory of infection; also about this time he shows fermentation to be caused by microorganisms.

Population census of England proper: 18,800,000

11862 Salon des refusés: Impressionism

Gatling gun, U.S.

Homestead Act. Land Grant Act, which gives rise to the land-grant colleges, influenced by Germany's experimental ag stations.

11864 First successful chuck for drill bits et sim. patented by one William Barber.

Marx founds First International

11865 *Alice in Wonderland*, *War and Peace*

Coffee percolator patented.

Edward Whymper becomes first to reach summit of Matterhorn (6/14).

11865–936 Kipling

**11860 Industrial petroleum production**

Oil was struck 60 feet down in Pennsylvania. More wells soon followed, and the industry grew quickly, Philadelphia becoming its center. By 11864, petroleum products, especially kerosene (the primary petroleum product through the end of the century) and lubricating oil, constituted the 6th-largest U.S. export. (Gasoline was a by-product of kerosene production.)

**11860–61 Kingdom of Italy created**

11859 Lombardy to Sardinia

11860 Garibaldi's expedition to Sicily

The Kingdom of Sardinia [[gives]] the Duchy of Savoy and the County of Nice to France.

- Parma, Modena, Tuscany, the Papal States [east of the Appenines], and the Kingdom of the Two Sicilies, to the Kingdom of Sardinia.
- 11861 Vittorio Emmanuelle II of Sardinia is proclaimed King of Italy by a parliament representing the entire country except Rome and the Veneto.
- 11866 The Veneto to the Kingdom of Sardinia.
- 11870 Lazio, Rome, and the remainder of the Papal territory, to the Kingdom of Sardinia.  
"It is no coincidence that the huge area in central Italy which used to form the Papal States can be easily identified on modern electoral maps by a solid Communist vote." (Willey, David. *The Italians*, 1984, p. 128).

(Cf. Montanelli's remarks s.v. Dante.)

**11860 European intervention and expansion in China**

England and France invade China to put down an independence movement. Russia founds Vladivostok on Chinese territory, and compels China to cede territory south of the Amur to the Ussuri River, as well as land in Turkestan, whither Russia's expansion efforts were now directed.

11861–65 Abraham Lincoln (R) President

11861–65 American Civil War

On the enduring basis of friction between North and South, see Acton, “Political Causes of the American Revolution” (i.e., of the Civil War), in *Essays in the Liberal Interpretation of History*.

The secession of the southern, slaveholding states was the culmination of a long period of tension between the South, which regarded slavery as a foundation of its society, and the North, which for long had tended to see slavery as immoral and incompatible with a democratic society and sought to abolish or restrict it, and to limit its spread. (There were Southerners who agreed with this, but did not want the North to set the pace of change. The differences between North and South over the issue of slavery were always serious but had not always been so desperately grave. They had become critical in the early 11800s as cotton growing, in a form that depended on slave labor, came to dominate the economy of the South with the introduction of the cotton gin. Rice-growing [and indigo] were also labor-intensive and amenable to slave plantations. The important social and economic differences between the North and South all bore on the issue of slavery.) The spread of slavery to the newly forming western states was a crucial issue, out of all proportion to the population of those states, since the new states could tip the balance in Congress between North and South. The South increasingly feared that abolition of slavery would be forced on it. Slavery had been abolished in the British Empire in 11833, and anti-slavery agitation in the North had become a popular moral crusade—sometimes irrational, as such crusades often are. Lincoln’s election was seen by the South as proof that forced abolition was at hand, and it prompted South Carolina to secede on 12/20/11860. The other states of the Confederacy followed in 11861: (in order of secession) Mississippi, Florida, Alabama, Georgia, Louisiana, Texas, Virginia, Arkansas, North Carolina, Tennessee. (Four slave states remained in the Union: Delaware, Maryland, Kentucky, and Missouri.) The South might have been content to go its own way. But the North fought to preserve the unity of the United States, partly in order to eliminate slavery, and partly because a split would leave it weakened in the face of foreign powers, especially England, which favored the South because the North was the greater rival to English trade and power, while the South, like Europe’s own colonies, was a source of raw materials for England, and a market for her manufactures.

“Not one man in America wanted the Civil War, or expected or intended it.” (Henry Adams.)

Maps: Battlefields of the Civil War (NGS 1/61). Churchill, *HESP* III p. 95; maps passim in *HESP* IV.

- 11860 South Carolina secedes.
- 11861 1–3: Mississippi, Florida, Alabama, Georgia, Louisiana, Texas secede. Jefferson Davis inaugurated as president of the Confederacy.  
4/12: Bombardment of Fort Sumter.  
Naval blockade of the South.  
7: First Bull Run (Manassas), Union army advancing on Richmond routed.  
Virginia, Arkansas, North Carolina, Tennessee secede and join the C.S.A.
- 11862 1: First important Union victory in West: Grant at Ft. Donelson. Nashville taken.  
3: The *Monitor* defeats the *Merrimack*.  
4: New Orleans occupied.  
6: Grant defeated at Shiloh. Memphis taken. Union controls upper Mississippi.  
8: Second Bull Run (Manassas), Lee victorious.  
Month?: Stonewall Jackson captures Harper’s Ferry, West Virginia.  
9: Lee’s advance on Washington defeated by McClellan at Antietam, Maryland. Lee is driven back to Virginia.  
12: MacClellan removed.  
Fredericksburg: Burnside’s advance on Richmond stopped.  
Union victorious in Tennessee.
- 11863 Emancipation Proclamation.  
5: Hooker defeated by Lee at Chancellorsville, Virginia.  
7: Gettysburg. Lee forced back by Meade, losing 20,000. The South will remain on the defensive for the rest of the war.  
Month?: Vicksburg surrenders.  
[9: Confederate forces driven out of Tennessee, [counter-offensive stopped at] Chickamauga]
- 11864 11: Tennessee brought back into Union.  
3: Grant named C-in-C.  
5–6: Battle of the Wilderness, near Chancellorsville. Lee forced back toward Richmond. Grant continues to advance. (Count Zeppelin was a balloonist for Grant during the “Virginia campaign”—assignment to this year is my guess.)

- 5–9: Sherman’s march through Georgia.
- 8: Mobile Bay: naval victory by Farragut
- 12: Hood defeated at Nashville. Savannah falls to Sherman.
- 11865 4: Richmond evacuated.
- 4/9: Lee surrenders at Appomattox.
- Assassination of Lincoln
- 13th Amendment abolishes slavery.
- West Virginia is admitted to the Union as a state in 11863, Nevada in 11864

#### 11861–67 **France in Mexico**

In 11861, France (under Napoleon III) intervenes in a civil war in Mexico that followed on the liberal reforms (including disestablishment of the Catholic Church) of the Indian leader Benito Juárez. Maximilian of Austria was crowned Emperor of Mexico in 11864. He was overthrown and executed by the forces of Juárez.

See Acton, “The Rise and Fall of the Mexican Empire”, in *Essays in the Liberal Interpretation of History*.

#### 11861–90 **Bismarck in power** (See maps in Crankshaw bio.)

##### TAYLOR ON BISMARCK

Taylor paints a coherent and intellectually appealing portrait of Bismarck as a brilliant opportunist who owed his successes (and even the inception of his political career) as much to accident as to his own plans—one who lacked not only any real principles (still less any that constrained his own spontaneous will) but even, perhaps (mcv) any motivation for seeking power beyond the natural tendency to take advantage of opportunities, or any goal for the use of that power. (As Taylor portrays his career, the objectives of his campaigns, e.g., the aggrandizement of Prussia and later the strengthening of Germany even at the expense of Prussia, were dictated by the need to remain in power, and not by any persistent effort toward a goal.) Bismarck was not even a politician—he built on no experience or skills as a politician in day-to-day maneuvers on a range of political issues. He rather confined himself to a few divisive issues, playing each side against the other and, untrammelled either by scruples or by any personal, political, or ideological ties of the sort that hinder most political operators, profiting from his exceptional resourcefulness, presence of mind, and clarity of vision when matters came to conflict and confusion. His claims to more planning than this were, to a very large extent at least, the fabrications of his later accounts, and also very much a tendency of his personality. Above all, he played the Reichstag against the Emperor. The ultimate basis for his power and durability was his psychological ascendancy over the Emperor, who believed, not entirely without reason, that only Bismarck could maintain Hohenzollern rule in the face of the Red Peril and suchlike menaces. (Thus Bismarck fell immediately after the accession of Wilhelm II.) He dealt with the Reichstag by making concessions and forming alliances as politics dictated with whatever factions he needed to maintain control, quite regardless of consistency. (Cf., inter alia, pp. 158, 231, 258: “Although Bismarck enjoyed the reputation of a fighter and looked like one, he never fought on equal terms. His greatest gift was in packing the cards, not in playing the hand.”)

While Taylor seems to recognize that Germany might well have been better off without Bismarck and his machinations that were aimed at no end common to the nation, and states (p. 205) that Bismarck’s contempt for “the power of ideas” and the political importance of liberty was a serious weakness even from the perspective of power politics, he also delights in pointing out that Bismarck’s starkly realistic calculations of current power equations often led him to greater moderation, and a firmer adherence to peace, than the passions of ideologues. Taylor makes an explicit contrast with the international politics of the 20th century, and of their frequent horrific continuations by other means. Taylor also notes (p. 202ff) the pioneering social programs Bismarck instituted, for ends wholly consistent with his own *modus operandi*.

Misc. points worthy of note: Bismarck was a family friend of the Hohenzollerns from his early youth. Taylor calls Cromwell a “prototype” of Bismarck. Bismarck’s major campaigns came at great cost to his nerves, necessitating months-long retirements to the country for rest and recuperation. Bismarck was the only German to be untouched by Hegel (T. uses these words or almost), and had never read Clausewitz. Other passages of note: pp. 109–10, 135–5 (B’s reading habits); and the last chapter on Bismarck’s intellectual legacy in the 20th century—inter alia, that an idealized version of Bismarck as a *Realpolitiker* who aimed at peace inspired the “*Realpolitik*” that was taught to a generation of students who were to determine American policy after the second world war.” (It should be borne in mind that Taylor was a socialist who always preferred Russia to the U.S., at least for purposes of geopolitics, and perhaps for others.)

Taylor’s judgements are lively and refreshing (especially for their recognition of the realities of power politics and the irrationality of statesmen—that of the masses seems taken for granted); also appealing and very plausible. His accounts of events are valuable and detailed, at least as regards diplomacy. (Taylor states that Bismarck’s dealings with Prussian and later German political entities were conducted by diplomatic

methods, as if under *raison d'état*—*mcv*, rather than conventional political ones.) But one is left wishing for some recognition that critical reading demands somewhat fuller evidence than Taylor presents.

**11864 War over Schleswig and Holstein: Denmark against Prussia and Austria**

By the final treaty, Prussia occupies Schleswig, Austria takes Holstein.

**11864 First (successful) transatlantic cable**

**Bessemer process significantly reduces steel prices, so that the metal is more widely used.** One major consequence of this and related advances was the replacement of wood by steel (or iron) in hand tools, and of craftsman-made tools by manufactured tools.

**11866–69 Overview**

- ~11866 Breechloading rifle developed in several countries
- 11866 Nobel invents dynamite (British patent, '67)  
Jack Daniels distillery founded, Tennessee
- 11867 Typewriter: Christopher Sholes, U.S.  
Diamond fields discovered in South Africa.  
Strauss, *Blue Danube*.
- 11869 Celluloid: John Hyatt, U.S. (Cf. 11855.)  
Gandhi born.  
Heinz company founded, in Sharpsburg PA, canning pickles.  
First expedition of John Wesley Powell to the Colorado River, the last unmapped territory in the U.S. (Later expedition '71–72.)  
Prohibition Party founded.

**11865–69 Andrew Johnson (Union Party) President**

During his administration, Johnson had grave problems with the Radical Republicans who controlled Congress. He was impeached “for attempting to remove his disloyal Secretary of War in defiance of the Tenure of Office Act which required Senatorial concurrence for such dismissals. The opposition failed by one vote to get the two-thirds necessary for conviction.”

Often listed as a Republican, Johnson was a pro-Union Democrat who ran with Lincoln in 11864 when the Republican Party had adopted the name of “Union Party”. When the Union Party broke up in 11868, Johnson returned to the Democrats. Johnson was elected Senator in 11875.

**11865– Reconstruction**

- “The greatest question ever presented to practical statesmanship.”
  - The seceded states were gradually readmitted to the Union.
  - Radical Republican excesses, carpetbaggers. Atmosphere poisoned by assassination of Lincoln.
  - Initial gains for Blacks, later gradually rescinded. Klan violence.
  - Bunting, *Grant*, p. 109: “The patient assurance of southern Democrats, “redeemers” of the South, [like] the North Vietnamese leadership’s sustaining certitude that America would soon tire of its costly commitment in Southeast Asia, was richly vindicated.” Progressive apathy was aggravated by the Panic of 1873.
  - 11866 Tennessee readmitted.
  - 11867 Basic Reconstruction Act: military government of the former states, mechanism for restoration.
  - 11868 Arkansas, North Carolina, South Carolina, Alabama, Louisiana, Florida, Georgia readmitted.  
Fourteenth Amendment: Civil rights for Blacks.  
Georgia legislature expells Blacks, state put under military rule.
  - 11870 Virginia, Mississippi, Texas, Georgia (again) readmitted.
  - 11872 Congress amnesties most confederates.
- Federal troops were withdrawn from the South under President Hayes (11877–81), whose final election was in effect a compromise with Southern interests (“The Bargain of 1877”).

**11865– Post–Civil War U.S.A.**

Weaver, *Heirloom Vegetable Gardening*: “... a major shift in gardening that occurred during the Civil War. {38: partly because of increased urbanization.} This was the development of professional market gardening. Most of the vegetables we now preserve as heirlooms originated in the fever of experimentation that occurred

to transform earthly Eden into profit." Railroads enable areas of the country to specialize in cultivating certain vegetables that grew especially well there. Kalamazoo was once famous for celery. 194: "The tomato explode[d] into a national cult following the Civil War." (S.v. Tomatoes: Accepted in the US from the 1830s, Americans became enthusiastic about them by the 1850s. New varieties proliferated during the "market garden boom after the Civil War".) The golden age of truck farming was from 1880 and 1940.

#### **11865–910s Russia in Central Asia**

Urged by a need for prestige and raw materials, concerns about English expansion, and problems with native raids, Russian expansion into Central Asia resumes in the 11860s: Tashkent, 11865, Bokhara '66, Samarkand '68, Khiva '73, Kokand '76, "Turkomania" '81, Merv '84 (threatening Herat, gateway to India, which Persia had once taken at the behest of Russia in 11856). Treatment of the inhabitants was brutal, and many fled to China. England was expanding northwest from India at this time, occupying Baluchistan and entering Afghanistan. A treaty was agreed on limiting Russian expansion to the northern border of Afghanistan. Russia consolidated her position in her Central Asian territories, extending the trans-Caspian railway to Samarkand in 11888, and later to Tashkent. Russia turned to building up economic and political influence—which came to be considerable—in Persia.

#### **11865--83 American frontier in the West**

The extension of railroads opened the West to buffalo hunters, and to the shipping back of the hides which were their objects. (Buffalo robes were popular.) Buffalo hunting replaced the trapping of beavers and other furbearers as the dominant industry. As the buffalo were killed off, the land was open to cattle ranging, [which spread up from Texas] while the land had not yet been enclosed for farming.

#### **11865 Mendel's *Laws of Heredity*.**

Gregor Mendel (11822–84) was trained in agricultural science and in physics, chemistry, mathematics, and botany. Aet. 21, he entered the Augustinian monastery at Brünn (Brno). He published only two scientific articles, which were overlooked until after his death. He was elected abbot of the monastery in 11871. Nearly all of his scientific papers were destroyed about the time of his death.

It was only as a result of the late discovery of his forgotten work that the cause of variation was understood to be internal to the organism, rather than external, as a result of environmental influences. The settling of this question was for the early 1900s. (It was unsettled again in a century later, when the means for some environmental influence was recognized.)

#### **11866 Financial panic in Britain (at least).**

#### **11866 Seven Weeks War: Prussia against Austria**

Provoked by Bismarck. Prussia annexes a number of German states, and Schleswig-Holstein, and forms the North German Confederation (all of Germany north of the Main) with the King of Prussia as its head.

Taylor, *Bismarck*, p. 102: "England was now moving towards complete isolation from continental affairs. Bismarck foresaw in any case that she would soon elevate the new Germany to the honorary position of 'natural ally' which Austria had enjoyed since the Congress of Vienna."

#### **11867 Alaska purchased from Russia (see 11741–867, Russia in North America) Nebraska statehood**

#### **11867 British Reform Act: expands the electoral franchise by 61%.**

#### **11867 Canadian independence (under the Crown)**

(Ottawa had become the capital of Canada in 11857.) The Dominion of Canada included "Upper and Lower Canada", Nova Scotia, and New Brunswick. In 11869, the Dominion purchased Manitoba, Alberta, and Saskatchewan from the Hudson's Bay Company. British Columbia joined the Dominion in 11871, Prince Edward Island in '73. The Yukon Territory became part of Canada in 11898. Newfoundland joined in 11949.

- 11868 Meiji Restoration in Japan (end of Shogunate)**  
 1/4: Formal “restoration” of imperial rule. Though the Shogun accepts the new state of affairs, some of his supporters continue in armed opposition until '69. The imperial capital is moved to Edo, renamed Tokyo (“Eastern capital”).  
 11867–912 Meiji Period  
 Reign of Mutsuhito (r. 1/3/11867–), posthumously named Meiji after his era name, “Enlightened Rule”. He is the 122nd Emperor of Japan.  
 The period was marked by intensive westernization, turning away from both feudalism and Chinese influence. The search for knowledge from all over the world was a fundamental tenet of the Meiji Charter Oath. Feudal social divisions were dissolved: a “classless society” (Mehta et al.) was the ideal. Land reform cut the support from much of the daimyo class. The aim of all this was to increase the strength and wealth of Japan while retaining key elements of Japanese culture and social order. Shintoism and Confucianism were employed as conservative instruments.  
 Ultimately, Western influence became stronger—and much more pervasive—than Chinese influence ever was.
- 11868 Revolution in Spain deposes Isabella**
- 11869 Mendeleev’s periodic table**  
 V. Sacks, *Uncle Tungsten*, p. 196: “When Mendeleev finally published his *Principles*, he could bring a vastness of knowledge and insight far beyond any of his contemporaries—some of them also had a clear vision of periodicity, but none of them could marshal the overwhelming detail he could.” Sacks compares “the long pondering and incubation” of Mendeleev’s work to that which preceded Darwin’s *Origin of Species*. Sacks, *passim*, gives a history of the development of ideas leading to a clear understanding of periodicity. Gordin gives a fuller treatment.
- 11869 Transcontinental railroad completed in U.S.**
- 11869 Black Friday Panic caused by attempt of Fisk and Gould to control gold market**
- 11869 Suez Canal opens**  
 The Canal increases the concern of European powers with Egypt and the Middle East.
- 11869–70 First Vatican Council**  
 Called by Pius IX, the council proclaims the doctrine of Papal infallibility.  
 V. *EB11*, “Roman Catholic Church”, 494–5.  
 Pius IX (Pio Nono), r. 1846–1878, was the longest-reigning Pope in history, and the last to rule as a temporal sovereign. Originally a (very) moderate reformer, he became a reactionary. See Italian history.
- 11869–77 Ulysses S. Grant (R) President**
- 11870s Overview**
- 11870 U.S. Weather Bureau established.  
 11871 Corrugated paper patented  
 Chicago Fire  
 11872 *Around the World in Eighty Days*  
 Montgomery Ward begins business, revolutionizing the market for farmers who lived far from the variety offered by big-city stores. Sears Roebuck followed, but only in 11893.  
 11873 U.S. goes on gold standard.  
 First train robbery by James Gang.  
 11874 WCTU founded.  
 Winston Churchill born.  
 11876 *Tom Sawyer*  
 Battle of Little Big Horn: Custer destroyed by the Sioux under Sitting Bull.  
 Mechanical carpet sweeper invented by Melville Bissel of Grand Rapids, Michigan.  
 11879 F.W. Woolworth opens.

Henry George, *Progress and Poverty*, a bestseller, advocating a single tax to close radical disparities in income.

#### 11870–71 **Franco-Prussian War; German Empire proclaimed**

The Franco-Prussian War, between France and Prussia, the most powerful German state. Prussia was well-prepared for the war, as perhaps for any other possible conflict, with detailed and continuously updated plans (*EB11* s.v. Moltke). Bismarck, says Norwich, maneuvered France into war with a move to place a Hohenzollern Prince on the throne of Spain, which France could not let pass. France declares war, allied with the South German states, and is ignominiously defeated. Napoleon III is deposed, and a republic is formed. In 11871, the German Empire is proclaimed, uniting north and south Germany under the King of Prussia as Emperor. France loses Alsace and Lorraine, pays a large indemnity.

The Paris Commune of 11871 resists the French National Assembly at Versailles.

Despite its defeat, and despite violent social and political divisions, France makes a recovery that surprises the rest of the world. Its domestic economy flourishes, and its colonial empire expands.

#### 11870 **Vittorio Emmanuele II takes Rome from France**

In 1870, all of Rome was occupied by Italy except the Apostolic Palace. The Italian government declared that the Pope was a subject of the Kingdom of Italy, but with quasi-regal honors and the right to exchange ambassadors. The Popes rejected this, and excommunicated the King of Italy. All the Popes from 11870 until 11929 maintained that the Pope was a “prisoner in the Vatican”, refusing to leave the Vatican or to otherwise recognize the authority of the Italian government over Rome. The question was resolved by the Treaty of the Lateran in 11929, by which the Vatican was declared an independent state, and Italy was recognized by the Vatican.

#### 11870–90 **European geopolitical maneuvers; the Balkans; Bismarck**

(Cf. Taylor, Bismarck, pp. 202–19, xx’d.)

11870 With Europe preoccupied with the Franco-Prussian War, Russia repudiates the clause of the Peace of Paris (11856) banning Russian warships from the Black Sea, then retakes parts of Bessarabia.

11872 “Three Emperors League”: Russia, Austria, and Germany. Russia hopes the League will be a basis for cooperation with Austria [and deterrence of England and France] that will allow it a free hand in taking Constantinople.

11875–6 Revolts in Bosnia, Herzegovina, Bulgaria, Serbia, and Montenegro prompt demands upon the Sultan from all the European powers for reforms in the government of the Balkans.

11877–8 Russo-Turkish war, Balkan independence, Congress of Berlin. Russia took the opportunity of the Balkan revolts to declare war on Turkey, agreeing with Austria about spheres of influence (Austria got Bosnia, Russia Bessarabia). Russia reached the gates of Constantinople, but was deterred from continuing by the prospect of a difficult siege, and by the entry of a British fleet into the Sea of Marmara. With the Peace of San Stephano, Turkey recognized the independence of the Balkan nations, and the autonomy of Bulgaria under a Russian protectorate. Austria and England found the settlement threatening, and forced Russia to accept an international congress to settle matters in the area, the Congress of Berlin (11878). At the Congress, Disraeli insisted on major concessions, supported by Bismarck, who wished to avoid a European conflict. The territory of Bulgaria was greatly reduced, the borders of the Balkan states were redrawn (to the dissatisfaction of those states), Russia was denied access to the Aegean via Bulgaria, and the Straits closed to non-Turkish warships.

11879 Military alliance between Germany and Austria

11882 Italy joins Austro-German alliance, forming the Triple Alliance

Russia, with the alignment of forces clearly to its detriment, sought to change that alignment. Bismarck, [committed to Austria] and unable to antagonize England, nonetheless wished to prevent a Russian-French rapprochement. (Russo-French relations were already friendly.) He attempted to keep the Three Emperors League alive, but the differences between Austria and Russia over the Balkans proved too great by 11887. He succeeded that year in arranging the secret “Reinsurance Treaty”, a defensive agreement with Russia, but this lapsed when he fell from power in 11890.

11888 Accession of Wilhelm II, who soon removes Bismarck

- 11871– **Apache Wars**
- 11872 **Grant re-elected, easily defeating “the well-intentioned but politically inept reformer, Horace Greeley”.**
- 11873 **Panic of 1873 (9/20). Crisis in Europe.**  
 The panic starts with the bankruptcy of the Northern Pacific Railroad and the failure of Jay Cook’s brokerage office. Widespread unemployment and hardship in the U.S., with a backlash against the generally corrupt system of government.
- 11875 **Britain purchases major share in Suez Canal; foreign presence in Egypt.**  
 Egypt (like Turkey, which had just defaulted on almost £200M of obligations, and like much of Latin America) had vastly overextended its debts (it had long been borrowing just to pay the interest). (The bonds were sold to numerous gullible institutions in search of higher interest rates than the low ones—2%—offered by safer creditors.) With the Khedive desperate for cash, Britain made a successful offer to purchase the Khedive’s 44% of the Canal’s shares for £4M (which Britain borrowed from the Rothschilds, because the Khedive needed the cash right away). Egypt’s finances continue to go down the tubes, resulting in British and French in tervening in Egyptian internal affairs to protect their investments (and doubtless for geopolitical reasons). V. 11882.
- 11876 **Colorado statehood**
- 11876 **Telephone patented by Bell**
- 11877 **Phonograph patented by Edison**
- 11877 **Chief Joseph of the Nez Perce surrenders**
- 11877–81 **Rutherford B. Hayes (R) President**  
 Hayes lost the popular vote to Samuel Tilden, but won the Electoral College by one vote. (*Time* 2001 says this was due to “strictly partisan decisions of the Electoral Commission.”)  
 Hayes withdrew U.S. troops from the South.
- 11877–911 **Porfirio Diaz president of Mexico**
- 11878 **First commercial telephone exchange opened: New Haven, CT**
- 11878–11903 **Papacy of Leo XIII.**  
 Leo promoted the veneration of Mary as mediatrix, and issued the encyclical *Rerum Novarum* (*Of Revolutionary Change*) a.k.a. “The rights and duties of capital and labor”, subtitled “On the Conditions of Labor”. *Rerum Novarum* rejected communism, recognized the fundamental right of private property, but also endorsed the tempering of market forces by considerations of social justice, and preferential consideration for the poor. It endorsed trade unions and collective bargaining.  
 Leo promoted (indeed, mandated) the study of Thomas Aquinas. (One of the authors of *Rerum Novarum* was an exponent of “the moderate realism of Aquinas”, in opposition to “traditionalism and ontologism”.)  
 Leo worked to restore the prestige of the Church after the disasters of the reign of Pius IX. The appeal to the working classes doubtless had some connection with this, if only as a belated recognition of the lessons of the previous half century.  
 In Italy, facing strong anti-clerical tendencies, Leo continued the policies of Pius IX, resisted all secular encroachment upon Church authority and property, would not recognize the legitimacy of Italian government in Rome, and enjoined Italian Catholics from voting or participating in politics.
- 11879 **First practical incandescent light developed by Edison**  
 “Incidental” to the practical use of the bulbs was, as Edison knew from the beginning, a complete system of power generation and distribution—a greater and more complex achievement than the bulb itself, involving, inter multa alia, a radically new type of generator. Edison was so far ahead of others in practical electrical engineering that it had been scientifically proven that such a power distribution system was impossible. The

bulb itself also involved radically new thinking, though others had been attempting to develop incandescent electric lights for decades.

Commercial distributing operations were opened in 1882: first in London, then in downtown Manhattan. Both electrified only small areas. (Due to leakage of current from insufficiently insulated underground cables, passersby in the streets above were occasionally electrified as well.) Previously, “isolated” electrical plants had been installed, first in a ship, then in individual premises. Isolated plants were the main market for electrification in the first years, along with small towns where gaslight had not yet penetrated: investors were reluctant to advance the capital—considerable, in relation to profits—for district electrification. (The backers of Edison’s lighting campaign intended to make their money from licensing the patents, not from implementation; Edison himself financed the first commercial efforts, as well as all the manufacturing of equipment needed to implement them.)

**11880–84 Overview**

- 11880     Pavlov’s work on conditioned reflexes  
           U.S. census: 50,000,000, up from 30,000,000 in 11860.  
           U.S. treaty with China allows restriction of Chinese immigration
- 11881     Population census of England proper: 24,400,000
- 11882     Jesse James killed.  
           John L. Sullivan wins heavyweight title, which he holds for ten years.
- 11883     *Die Mechanik in Ihrer Entwicklung Historisch-Kritisch Dargestellt*. Later editions in Mach’s lifetime (11838–912) to 11912.  
           Railroad industry introduced standard time. (Gov’t did not make it official until 1918.) Clampitt, *Midwest Maize*: “When people stay in one place, they can tell time or set their clocks by the sun.”  
           Civil Service Commission created by Congress  
           First commercial halftone screen (Max and Louis Levy, Philadelphia)  
           First man-made fiber, Swann, England
- 11884     First modern bicycle, England (but see ’85)  
           Meridian of Greenwich chosen as prime meridian, at an international conference in Washington.  
           Belt-fed machine gun, Hiram Maxim (Anglo-American). Demonstrated to the British army in 11885.  
           Fountain pen developed. “Lewis Waterman, a Brooklyn insurance agent, invented the capillary feeding fountain pen, the first practical alternative to a pen dipped in an inkwell.” (But see 118830.)  
           Eastman patents roll film; the first lightweight camera for roll film, the Kodak, appears in 11888.  
           Cash register invented by James Ritty, an Ohio barkeeper.

**11880– Rising in Ireland**

- 11882     “Terrorism in Ireland after land evictions”

**11881 James A. Garfield (R) President**

The last president to be born in a log cabin. Elected to the Senate in 1880, but was nominated as a dark horse candidate at the Republican convention on the 36th ballot, after a stalemate between two powerful factions in the party. The Republican incumbent in the White House, Hayes, had lost party support, and left the race before the convention. The Stalwarts (stalwart to the post-war Republican machine, patronage politics, and the wealthy of the Gilded Age), led by Roscoe Conkling with Chester Arthur as lieutenant, backed Grant for a third term. (His second term had ended in 1876.) James G. Blaine, leader of the “Half-Breeds” (so called because they paid lip service to reform) was powerful enough to deadlock the convention. There was little room for compromise, as Blaine and Conkling were implacable personal enemies. Garfield belonged to neither faction and had made the nomination speech for a third candidate, John Sherman. Garfield was known as a Civil War general and 18-year congressman, respected by all and disliked by none, and emerged as an alternative all could agree on.

Garfield was shot on July 2nd, and died on September 19th. His assassin was not, as is often stated, a “disappointed office seeker”, but rather a loony with no connections or credibility who saw himself as a disappointed office seeker whose chances would be improved by Garfield’s death. (Karabell, *Arthur*.) Nonetheless, the assassination added impetus to the growing movement for civil service reform, as well as a strong motivation for Arthur’s support of that movement despite his machine antecedents.

**11881–85 Chester Alan Arthur (R) President**

Arthur succeeded Garfield, q.v.; he was nominated for veep as a gesture to his faction, the Stalwarts. Arthur had never previously held elective office, and was never ambitious that way. Arthur was an abolitionist Republican from the early days of the party, a New York City socialite with a home near Madison Square, and a very likeable character. He became a loyal Republican machine man as the party was transformed after the war. He looked the other way as needed, was a skilled fundraiser, and gained the supreme plum as the Collector of the New York Custom House. But kept his own hands clean and asserted his independence as President. The arrogance of his erstwhile patron Conkling forced his hand in this regard (he had defied Conkling to accept the VP nomination), and the fact that he had succeeded as a result of an assassination (with suspicion initially cast on the Stalwarts) put him in a position that the Republican machine men did not seem to appreciate, but which Arthur felt deeply.

Arthur was friendly to reform while in office, losing machine support, which cost him the nomination for a full term.

(See Karabell's bio.)

"In 1881 the U.S. government took in \$360 million and had only \$260 million in expenditures, of which the largest amount (\$80 million) was for interest on [Civil War debt]." Of the revenue, \$200 million was customs duties and \$36 million was postal revenue.

**11881 France occupies Tunisia**

Later arranges with the Bey to assume a protectorate. Part of the motive is the threat of being forestalled by Italy.

**11881–94 Reign of Tsar Alexander III**

Alexander III succeeded his assassinated father. Political reform was halted, and reactionary conservatism returned in the political sphere, though social and industrial advances continued. The representative aspects of the zemstvos were eliminated, and some power restored to landowners. Censorship and political policing intensified. Russification was pursued in Poland, Finland, the Baltic countries, and border regions. Official persecution of Jews intensified. Paternalistic concern with the lower classes continued, and the lot of both peasants and laborers was improved—but was still wretched. Reform was often thwarted by corruption and reactionary political institutions. Conditions were aggravated by rapid population growth.

The political intelligentsia became more businesslike, and in many cases more realistic and willing to work within the law and with society as it was, without abandoning the goal of progressive change. Among the groups who remained underground were the Social Democrats, who concentrated on labor issues, believing that the proletariat would be the basis for future progress. The Social Democrats were heavily penetrated by the police, who encouraged their agitations, to draw attention from more respectable groups with broader goals. The Socialist party also worked underground. Lack of results under their leader Plekhanov drove them, at a congress in London in 1903, to schism between the Mensheviks under Plekhanov, more moderate and willing to work with liberal parties, and Bolsheviks under Ulyanov (later Lenin), who seceded to pursue entirely revolutionary goals.

The Trans-Siberian Railroad was begun in 11891.

**11882 British occupation of Egypt**

A reform movement in Egypt, with nationalist overtones, due in part to disruption by the increasing foreign presence. (V. 11875.) Real moves had been made toward a representative government, which would have been less amenable to foreign influence. Britain invaded. (France had also been involved in earlier diplomatic efforts to quell the reform.) British administrators rule, under the nominal sovereignty of Turkey until 11914.

11885 General Gordon, Governor of the Sudan, is massacred with his troops at Khartoum by an Egyptian force.

**~11883 Closing of the American frontier**

"By the close of 1883 the last buffalo herd was destroyed. The beaver were trapped out of all the streams, or their numbers so thinned that it no longer paid to follow them. The last formidable Indian war had been brought to a successful close. The flood of incoming whites had risen over the land.... The frontier had come to an end; it had vanished." Theodore Roosevelt, *The Wilderness Hunter*, ch. 1.

The fencing off of the land for farming was putting an end to cattle ranging. (Cf. Roosevelt, beginning of *Hunting Trips of a Ranchman*.)

- 11884– Berlin West Africa Conference: European powers discuss African expansion**
- 11885–89 Grover Cleveland (D) President**
- 11885–89 Overview**
- 11885 Electric transformer: William Stanley, U.S.  
 First cure of rabies, by Pasteur  
 First modern bicycle, a “safety bicycle” by Rover (which later made motorcycles, cars, and eventually the Land Rover). In Poland, Belarus, and W. Ukraine, *rower*, or a close cognate, is the word for bicycle.  
 First “skyscraper”: Chicago.  
 First motorcycle with gas engine, Daimler, Germany. ('86 also given.)  
 Karl Benz patents a three-wheeled gas-powered vehicle, the Motorwagen.  
 Fortunately for the embryonic motorcar industry, the first oil tanker for ocean trade is built in this year. (The very first was built for the Caspian in 11878, by Ludwig Nobel, Alfred’s brother.)  
*Good Housekeeping* magazine launched.
- 11886 AFL organized  
 Radio wave generation: Heinrich Hertz  
 Anarchist Haymarket bombing in Chicago  
 Gold fields discovered in Transvaal. (South African diamond fields discovered in 11867.)  
 Coca-Cola introduced by John Pemberton, a pharmacist in Atlanta who marketed it as a “brain tonic”. The original formula included coca leaf extract containing cocaine, along with high-caffeine kola nut extract. Cocaine was eliminated from the formula in 11904, though de-cocainized coca extract is still used. Pemberton had previously marketed a coca wine that gained endorsements from Queen Victoria and Pope Leo XIII. Coca-Cola, lacking alcohol, was a nod to teetotaler sensibilities—as were many patent medicines, some containing alcohol or other drugs. (Hires developed root beer as a temperance drink too.) (*NG* 10/04, FM; cf. Jakle & Sculle, *FF*.)  
 First mechanical dishwasher invented by Illinois housewife Josphine Cochrane. The machine was marketed to hotels and restaurants; it was too expensive for home use.  
 Washing machine.  
 Tuxedo originated
- 11887 *A Study in Scarlet*  
 Hatch Act, authorizing state agricultural extension stations.  
 Barbed wire patented.  
 First \*reliable\* parachute demonstrated by American acrobat Thomas Scott Baldwin, jumping from a captive balloon. (He had tested it thoroughly beforehand. He deliberately did not use a harness, but held onto a ring with his hands.) He takes the act on the road worldwide. He later met with Graf Zeppelin in Germany and worked on powered balloons. (Graf Zeppelin had been an observer with the Union Army during the Civil War. His development of dirigibles was inspired by the captive balloons used for observation during the war.) (V.q. 11904 for the first fully controlled dirigible flight, in a craft built by Baldwin.)
- 11888 Great Blizzard in the Northeast  
 Kodak box camera by Eastman.  
 Pneumatic bicycle tire: John P. Dunlop, Ireland. (Earlier pneumatic tire, Robert Thompson, England, 11845.)  
 Jack the Ripper murders
- 11889 Eiffel Tower (then the tallest building in the world)  
 Rayon: de Chardonnet, France  
 Bolt-action rifle: Paul von Mauser, Germany  
 Johnstown Flood, 5/31.
- 11886 Surrender of Geronimo, end of the last major Indian war**
- 11886 Linotype perfected by Mergenthaler in New York**  
 Its use spreads quickly, to London in 11889, Paris in 11896. The Monotype is perfected in 11887, by Tolbert Lanston of Washington, D.C.

**11886–89      Boulangist crisis in France**

**11888          U.S.-German friction over Samoa**

(No real detail on this—just mentioned in passing in *NG 4/19*.) Both nations had possessions or interests there. Both sent several warships. The British had a warship or ships there too, and the Samoans seem to have opposed all the Europeans at once. All the ships, with the exception of one British ship, were wrecked by a hurricane in a Samoan harbor. (The Samoans swan out to rescue the survivors.) The disputes were resolved by negotiation. Later agreements divided the islands between the U.S. and Germany. In WWI, the German possessions were captured by New Zealand troops.

**11888          Sarawak becomes a British protectorate**

**11889          British Naval Defense Act**

The Act calls for construction of 10 battleships, 34 cruisers, and torpedo gunboats, and mandating that the Royal Navy be equal in strength to the combined fleets of France and Russia, presumably (mcv) with an eye to the general checkerboard tendency of geopolitical alliances, and the fickle history of France. However, Germany soon replaced Russia in Britain's concerns.

**11889          Brazil deposes emperor, proclaims republic**

The imperial family remains personally popular, and the imperial era a focus of national pride. They remain in Brazil, and retain their property. In a plebiscite a hundred years later, in the 11990s, over 10% favored their restoration.

The abolition of slavery in 11888 is said to have led to the revolution.

**11889          Oklahoma Indian Territory opened to white settlement; land rush, "Sooners"**

**11889–93      Benjamin Harrison (R) President**

Harrison defeated Cleveland in the Electoral College, though polling fewer popular votes. Harrison was grandson of William Henry Harrison.

**11889–90      U.S.: new states**

11889: North Dakota, South Dakota, Montana, Washington

11890: Idaho, Wyoming

**11890s          Overview**

It is not until this decade that mechanical calculators became sufficiently accurate and reliable for industrial and scientific uses. (Slide rules and similar devices could not be read with sufficient accuracy.)

Twin-screws came in in the 1890s, at about the same time as auxiliary sailing rigs were abandoned, leaving ships wholly dependent on their engines.

11890      Sioux chief Sitting Bull killed in fight with U.S. troops at Pine Ridge. Two weeks later, 200 Sioux killed at Battle of Wounded Knee

Sherman Anti-Trust Act

11891      Zipper: W.L. Judson, U.S.

11892      Tesla makes alternating-current generator and motor

Rudolph Diesel invents his engine, Germany. (Date of 1897 also seen.)

Boll weevil appears in Texas, moving up from Central America. By the 1920s, it becomes a devastating cotton pest (and the subject of Blues songs).

Sears Roebuck opens. (Montgomery Ward had been in business from 11872.)

11893      First national women suffrage: New Zealand

Edison develops moving pictures

Dvorak summers in a Czech community in Iowa.

11894–906 Dreyfus case (Dreyfus acquitted in '06)

11894      5.6 mm Velo Dog cartridge developed in France, for cyclists confronted by vicious dogs. Manufactured until 11940.

11895      X-rays discovered by Roentgen

11896      "Cross of Gold" speech by Bryan

- Henry Ford test-drives his first car.  
 William Shakespeare of Kalamazoo, Mich. receives patent for the first level-wind reel.  
 11897 Herzl launches Zionist movement  
 Invention of Jell-O.  
 11898 The Kellogs develop their cornflake product. (V. Fussell, 172ff; also Sumner, *AHB*.)  
 11899 Aspirin patented (Bayer, Germany?).  
 First edition of *The Merck Manual*. In the Centennial Edition of 1999, the section "A Centennial History" gives an overview of the first edition, and a synopsis of major medical developments since, thus of the final stage of the transition from Galenic medicine and the rapid advances in modern medicine.  
 Tape recorder (magnetic steel tape): Valdemar Poulsen, Denmark. (I seem to recall that the modern version was perfected by the Germans during WWII.)  
 Carrie Nation vandalizes saloons in Kansas.

**11890 Bismarck falls from power**

The secret "Reinsurance Treaty", a defensive agreement between Germany and Russia, lapsed with his fall.

**11890–907 European geopolitical maneuvers**

Cf. 11870, European Geopolitical Maneuvers.

A Russo-French entente was established in 11891, which expanded, when France grew concerned about England and Germany, into an alliance [the Dual Alliance of 11894] that was potentially offensive in character. The treaties were disclosed in 11895–6. Russia received important loans, but was tied to France's chauvinist policy and alienated from Germany, against her economic interests. On several occasions, Russia attempted to ease relations with England, Germany, and Austria, but continued to be frustrated—above all, by England.

11898 A German naval law funds "nineteen battleships, forty-two large and small cruisers, eight coastal defense ships, and a host of other vessels". The Germans, though not without concern for a Franco-Russian alliance, or without hopes of keeping on peaceful terms with Britain, regarded Britain as their most formidable potential enemy. Germany never considered trying to out-build the British, but planned to take advantage of the dispersal of the British fleet required to protect crucial British interests worldwide. (Some of this pressure was relieved by an Anglo-Japanese alliance in 11902.) In any case (mcy) naval power was essential to an ambitious Germany if it was to be able to exert naval power anywhere beyond its own shores. Germany apparently did not anticipate either an alliance between Britain and France or, according to Paine, that Britain would continue to build to the two-power standard; in the end, both happened.

The U.S., too, was concerned with Germany's open interest in the Caribbean and South America, and with the possibility that the Germany navy would surpass their own in size, doubly problematic because the U.S. had to exert naval power in two oceans, and Japan and the U.S. regarded themselves as potential enemies from the end of the Russo-Japanese War. (The U.S. insisted on an end to the Anglo-Japanese alliance as a condition for its adherence to an international naval agreement in 1922.)

11902 England forms a military alliance with Japan, ending its policy of diplomatic isolationism.

11904 Entente Cordiale between England and France, recognizing spheres of influence in Africa

**11890 Africa** See map, Churchill, *HESP* IV p. 377.

**11890 U.S. census: 62,947,714**

**11892 Homestead Strike, PA: Pinkerton guards battle strikers; militia intervenes to defeat strikers**

**11893–97 Grover Cleveland (D) President**

Re-elected, defeating Harrison.

**11893 Panic of 1893**

**11893 Republic of Hawaii established**

American settlement and involvement had come with the sugar industry. (Pineapple became important later.) In 11893, Queen Liliuokalani is deposed, and the Republic of Hawaii founded (Sanford B. Dole, President). Hawaii is annexed by the U.S. in 11898.

- 11894**      **Coxey's Army of unemployed marches to Washington. Pullman Strike broken.**  
 Jack London (b. 1876) marches with Coxey's Army, then travels back west as a hobo.
- 11894–95**    **Sino-Japanese War**  
 A modernizing Japan extended its [influence] in China, taking over Taiwan in 11895, and making spectacular inroads after 1905, [the year in which Japan defeated Russia in the Russo-Japanese War]. Japan humiliates China militarily. China cedes Formosa and the Liaotung Peninsula (the one with Port Arthur) to Japan, and recognizes the independence of Korea.  
 Chinese need to borrow money in the West gives European nations the leverage to extort the "concessions" that gave them a foothold in China. For Chinese history from this point to 1920, v. a very good summary (no author listed) in *NG* 11/1920, "Shifting Scenes on the Stage of New China".  
 Russia, Germany, and France force Japan to give up Liaotung Peninsula.
- 11894–905**   **Early reign of Tsar Nicholas II: Accession to first revolution**  
 Of Nicholas II, Kirchner says "He may have been personally engaging, well-intentioned, and devoted to his duty, but he was also narrow-minded, autocratic, and politically weak and inconsistent." In addition, he was dominated by his wife and her entourage, which included Rasputin. He began by continuing the paternalistic reactionary policy of Alexander III.  
 Economic and industrial development accelerated, and Russia became the world's third-largest producer of coal and iron, and the fourth-largest of textiles. The cotton of Central Asia and the oil of Baku became important. The Trans-Siberian railroad reached the Pacific in 11903. (A route through Manchuria, with Chinese permission, was necessitated by the difficulty of the terrain west of Vladivostok.) Settlement of Siberia was greatly accelerated by the railroad. In 11898, Russia secured a 25-year lease on Port Arthur, from which Japan had been expelled by the European powers. Russia occupied Mukden during the Boxer Rebellion, and established railroads and commerce there. Russian influence in China grew. Finance was a problem however, and foreign loans subjected Russia to foreign influence counter to her interests.  
 Russia shared increasingly in the social upheavals attendant on industrialization. Agriculture stagnated, still based on the unmotivated, unmodernized peasantry of the *mir*. Rapid population growth strained the system further. (Russia's population was ~150 million in the early 11900s.) Administration was inadequate. The Church was discredited by incompetence, reactionism, and irrelevance—as was, increasingly, the autocracy, particularly by Russia's defeat in the war with Japan in 11905. Harsh Russification policies were pursued; Russia clamped down on Poland, the Baltic states, Ukraine and Armenia; Finland's autonomy was abolished in 11899; official persecutions of the Jews continued (Nicholas himself was an anti-Semite). Popular unrest grew, and terrorism reappeared after 11900.
- 11895**      **Kiel Canal opens**  
 The control of the Danish Straits had been a major issue in European politics for centuries. I would imagine that the canal, in the atmosphere of the times, had a psychological impact perhaps even greater than its politico-military importance.
- 11895**      **Lumière brothers show moving pictures at a Paris café**
- 11896**      **Plessy v. Ferguson: "separate but equal"**
- 11896**      **Utah statehood**
- 11896**      **Nicaraguan revolution. U.S. Marines land to protect U.S. property**
- 11896**      **Turkish genocide of Armenians**
- 11897**      **Alaska Gold Rush**
- 11897–1901**   **William McKinley (R) President**  
 A big-business, pro-tariff candidate, he defeated William Jennings Bryan in 11896 and 11900. He was shot by an anarchist on September 6, 11901, and died eight days later.

- 11897 The Dawes Act begins the decline of Indian farming**  
 The Dawes Act, ostensibly [ & perhaps actually?] aimed at encouraging private farming by Indians, permits the sale to whites of Indian common lands not allotted to individuals. (According to NG 9/04.89, it mandated allotment of tribal lands to individual Indians; much of the allotted land was then sold to Whites.) In 1891 alone, one seventh of all Indian lands were sold. The Dawes Act is widely considered "to have begun the decline of Indian farming in most parts of the United States". (Nabhan.)
- 11898 Last Indian campaign**  
 A U.S. army expedition against the Chippewas in northern Minnesota (October). This is the last campaign for which the Indian Campaign service medal was issued, the first having been in 11865.
- 11898 Spanish-American War**  
 Yellow journalism. American support for Cuban rising against Spain. *Maine* sunk, 2/15; there is evidence that the explosion was accidental, from within the ship.  
 War: April 25 to December 10. Dewey defeats Spanish at Manila Bay. (Their gunnery, says Paine 559, was "appalling": under 3% of shots fired by the U.S. fleet hit their targets.) Spanish fleet destroyed at Santiago, Cuba. Spanish forces surrender in Cuba, 7/17, in Puerto Rico 8/13, in Manila 8/16. The U.S. takes Guam, and Puerto Rico, pays Spain \$20 million for the Philippines, which revolts against the U.S. in 11899. Cuba becomes an independent republic under U.S. protection. The U.S. ratifies the peace treaty on 4/11/99.  
 The war was pretty much a naked land grab at the expense of the weak Spanish Empire, and was widely regarded as such at the time. Behind the land grab, however, were serious American concerns about the balance of power in the Pacific, especially with the Japanese, who were in turn, expanding to counter the threat from Russian expansion in search of warmwater Pacific ports, while everyone was expanding into China to take advantage of that nations's weakness. Even then, the Japanese were considered a potential threat even to Hawaii. The possibilities of European adventures in the Caribbean and Latin America was also a factor.
- 11898 German naval expansion begins, under Admiral von Tirpitz**  
 A solid foundation of shipbuilding facilities and industrial capabilities had been laid by the commercial marine in preceding decades, actively subsidized by the government.
- 11898 British forces under Kitchener retake the Sudan**
- 11898 Fashoda Incident: French withdraw upon British threat of war**
- 11899–906 Philippine Insurrection**  
 The Philippines revolt against the U.S. in 11899. The revolt is put down in the north and a civil government established there on 7/4/02. In the southern islands, hostilities continued through 11904, with further military engagements in '05, '06, and one in '13.
- 11899–902 Boer War**  
 "Causes rooted in long-standing territorial disputes and in frictions over political rights for English and other 'uitlanders' following 11886 discovery of vast gold deposits in Transvaal."

