1764 Automated Spinning Machinery (I): Based in Oswaldtwistle, Lancashire, the British textiles millwright James Hargreaves [Wikipedia biography] experiments with a device now known as a "spinning Jenny", a partly automated hand-powered machine for the simultaneous spinning of several strands of cotton weft for subsequent weaving into a linen warp. Around the same time the inventor Thomas Highs [Wikipedia biography] and the clockmaker John Kay [of Warrington] [Wikipedia biography]
are carrying out similar experimentation in Leigh, Lancashire. None of the resulting prototypes is commercially viable. [continued 1767 ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: Readers unfamiliar with the difference between warp and weft in the weaving process should click here for a Wikipedia technical briefing.

1764 The French government takes the gunsmiths at St. Étienne into state ownership as a Royal Arms Factory. [THREAD = WW1 ARTILLERY]

1764 [11th April] Frederick II (the Great) of Prussia and Catherine II (the Great) of Russia sign a mutual aid pact guaranteeing Prussian control of Silesia in exchange for Prussian support of Russia against both the Austrian and Ottoman Empires. [THREAD = THE SHAPING OF THE MODERN WORLD]

1764 [16th November] Based in New York City and having already been in post for some months Thomas Gage is confirmed as Commander-in-Chief of British forces in North America. He also retains command of the 22nd Regiment of Foot. [THREAD = THE SHAPING OF THE MODERN WORLD]

1765 The Scottish writer James Macpherson publishes "The Works of Ossian" in which he claims to have collected and translated the poems of a Dark Age Irish prince named Oisin. For reasons which still need to be fully investigated, "Ossian" receives a very mixed reception. Many were entranced by its being a record of the past travails of people who might just have been the reader's own ancestors; others doubted both its historical accuracy or its literary worth. Samuel Johnson would famously dismiss it as "a gross imposition" upon the intellect. It inspired paintings by Gérard, Girodet (1805), and Ingres (1813). [THREAD = WW1 ROMANTIC NATIONALISM]

1765 [22nd March] The Stamp Act, 1765, and the "Loyal Nine": The British Parliament passes the Duties in American Colonies Act, 1765, imposing thereby a tax on all documentation produced in the Colonies in order to offset the costs of the troops stationed there. The Act will prove highly unpopular with the Colonials, who generally oppose taxation by a government wherein they are not properly represented. Opposition to the Act is led initially by the "Loyal Nine" - a pressure group of local Bostonian tradesmen including a journalist named Benjamin Edes, editor of the Boston Gazette - and from 14th August, as numbers grow, by the "Sons of Liberty". A Boston businessman named Paul Revere supports Edes by providing him with occasional inflammatory images. The Act will be repealed - not because it is wrong in any ethical sense, but because it has become uncollectable in a practical sense - on 18th March 1766. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 PROPAGANDA AND ATROCITIES]

1765 [14th August] The "Sons of Liberty": The "Loyal Nine" have now grown into a widespread network of provocateurs dedicated to fomenting direct action against the tax collectors who have been recruited to administer the Stamp Act. They like to regard themselves as a "patriotic underground" (Holt, 2012 online), and amongst their ringleaders is one Ebenezer McIntosh. The tax collectors soon resign in fear for their lives. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 PROPAGANDA AND ATROCITIES]

1765 [18th August] Upon the death of the Holy Roman Emperor, Archduke Francis I of Austria his major titles pass to his first-born son as Archduke Joseph II of Austria. [THREAD = THE SHAPING OF THE MODERN WORLD]

1765 [29th August or hereabouts] The British ironmaster Anthony Bacon I [National Library of Wales biography=>1777] leases mining rights at Nantyglo1 [map=>1792], in the parish of Aberystwyth2, near Blaunau3, South Wales. At much the same time he joins with William Brownrigg [Wikipedia biography]=>1777 and Charles Wood [<=1763] in leasing a 4000-acre riverside site4 by the River Taff at Cyfarthfa [map, etc.=>1777], Merthyr Tydfil, where they build a potting and stamping [<=>1763] ironworks. These facilities are extended the following year when works begins on a 50-foot-high coke-fuelled blast furnace [=>1777]. Bacon also acquires a 1763 lease from the Earl of Plymouth on land to the south-east of Merthyr Tydfil, naming the new site the Plymouth Ironworks [map=>1777]. [THREAD = THE INDUSTRIAL REVOLUTION]

1 ASAIDE - NANTYGLO: The Welsh words nant-y-glo mean "brook of coal", indicating that a coal seam had been cut down into by a waterway. Such seams can then be readily exploited by following them away from the point of discovery using open-cast or deep methods of extraction as local circumstances dictate.

2 ASAIDE - ABERYSTWYTH: Not to be confused with Aberystwyth. Aberystwrth is an ancient parish boundary, rather than a geographically distinct town, and hence is omitted from many modern maps.

3 ASAIDE - BLAENAU: This Welsh word rhymes rather conveniently with "miner" - compare the closing lines of Verse #1 of "The Bells of Rhymney" (Seeger-Davies, 1965) [hear it now at http://soundcloud.com/the-byrds-collective/bells-of-rhymney-remaster].

4 ASAIDE - CYFARTHFA: The site would have been wild moorland prior to its development. This origin of the Welsh place-name is obscure but indicates a place of barking or howling, so perhaps a local hunting spot. The ruins of six of the original blast furnaces are nowadays an open air heritage museum [coordinates and image].

1765 The British businessman Matthew Boulton [Wikipedia biography] erects a "manufactuary" at Soho, Birmingham, to produce small metal objects such as snuff boxes, candlesticks, buckles, and the like. [THREAD = THE INDUSTRIAL REVOLUTION]


1766 The Anglo-Russian Trade Agreement [1766]: Having already done likewise with Prussia [<=>1764], Catherine II (the Great) of Russia [1764<=1768] establishes trade cooperation with Britain. She then takes advantage of the relative stability on her northern borders to turn her attention to the troublesome Ottoman Empire in the south [continues =>1768 (6th October) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1766 A patent is awarded to Richard Ford [no convenient biography] of the Coalbrookdale Ironworks [1740<=1768] for a system of "tandem rolling" iron sheet, that is to say, of passing the output from one rolling stand directly to another until the desired thickness of plate or bar is achieved. (This sounds easier than it is because the devil is in the detail - every stand must perform be turning faster - and very precisely so - than the one before; too fast and the sheet will tear, too slow and it will ripple!) [THREAD = THE INDUSTRIAL REVOLUTION]
1766 [23rd February] Upon the death of Stanislaw Lesczczyński [<=1738] and as laid down in the Treaty of Vienna [<=1737 (12th July)] the Duchy of Lorraine duly becomes part of France, entering what Marshal Joffre will later describe as "France's maternal embrace". [THREAD = THE SHAPING OF THE MODERN WORLD]

1766 [30th July] The Chatham Parliament: An ailing William Pitt (the Elder) [1st Earl of Chatham] is appointed Prime Minister. His administration will survive until 14th October 1768, and will be noted by future historians for the colonial taxes introduced in 1767 by his Chancellor of the Exchequer Charles Townshend [Wikipedia biography]. These so-called "Townshend Acts" are the measures which will trigger the Boston riots of 1768-1770. [THREAD = THE SHAPING OF THE MODERN WORLD]

1766 [12th November] The marriage takes place of John Stuart [Baron Cardiff] [1st Marquess of Bute] and Charlotte Hickman-Windsor [no convenient biography]. Their union will be blessed on 25th September 1767 with a son, John Stuart II [Wikipedia biography]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1767 [30th April] The British businessman John Guest is appointed manager at the Dowlais Ironworks and soon becomes the largest shareholder. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE - THE GUEST DYNASTY: John Guest and his descendants are a perfect example of a rags-to-riches industrialist dynasty. John Guest began as a Shropshire brewer, farmer, and coal merchant. His son Thomas Guest takes over at Dowlais when his father dies in 1786, and his sons (i.e., John's grandsons) - John Josiah Guest and Thomas Revel Guest - carry on the tradition when he himself dies in 1807. This places the grandsons, of course, directly in the main upsurge of the Industrial Revolution and they amass a considerable fortune. This leads them (and later Guests) to mix with the British establishment's great and good, and to their subsequent ennoblement. Their holdings end up in the Guest, Keen, and Nettlefolds steel-making empire (the modern GKN plc [corporate homepage]).

1768 Automation, Control, and Artificial Intelligence [XVI - Automata (Jacquet-Droz)]: Continued from 1745 (Vaucanson) The Swiss clock-maker Pierre Jacquet-Droz [Wikipedia biography] embarks on a six-year programme building high-specification automata. The most famous examples are the 6000-piece "The Writer" [YouTube demonstration], the 2500-piece "The Musician" [YouTube demonstration], and the 2000-piece "The Draughtsman" [YouTube demonstration], all of which are nowadays conserved in Switzerland's Musée d'Art et d'Histoire [museum website] [sub-thread continues at 1770 (The Turk) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

********** THE SPINNERS STRIKE BACK **********

1768 James Hargreaves suffers a workers' riot which lays waste to his Blackburn Cottonmill. [<=1764]. [THREAD = THE INDUSTRIAL REVOLUTION]

1768 Thomas Gage stations the 29th Regiment of Foot in Boston, prompting the Sons of Liberty to intensify their secessionist lobbying. [THREAD = THE INDUSTRIAL REVOLUTION]

1768 The British businessmen James Harford [Grace's Guide biography], Richard Partridge [no convenient biography], and others, invest in a tinplating works at Melingriffith, Cardiff. [THREAD = THE INDUSTRIAL REVOLUTION]
1768 Primary sources from this year make reference to a finery forge at Aberdulais [map, etc.=>1782) converting pig iron from an unspecified source into bar iron (Rees, 1974 online). [THREAD = THE INDUSTRIAL REVOLUTION]

1768 Five years after his father's death the 18-year-old Abraham Darby III [Wikipedia biography=>1775] is now old enough to assume managerial control of the Coalbrookdale Ironworks [1766<=1775]. [THREAD = THE INDUSTRIAL REVOLUTION]

1768 Upon the death of Robert Morris [<=1726] his interest in the Llangyfelach Copperworks [1726<=1770] passes to his son John Morris [1st Baronet of Clasemont]1806 [Wikipedia biography], who sets about expanding the works and introducing new technical and managerial ideas, not least the development of "Morris Town" [modern Morriston, Swansea], a community of workers' houses nearby. [THREAD = THE INDUSTRIAL REVOLUTION]

1768 [6th October] The First Russo-Turkish War: This war is fought between Catherine II (the Great) of Russia [1766<=1788] and the Ottoman Empire under Mustafa III [Wikipedia biography] for control of the borderlands in what is now the Southern Ukraine, the northern Caucasus, and the Crimea. Here are the main events ...

The Obreskov Affair, 1768 [casus belli]; The Battle of Chesma, 1770; The Battle of Kagul, 1770; The Treaty of Küçük Kaynarca, 1774

The overall outcome is that Russia gains a strong foothold on the northern shores of the Black Sea, thereby improving its access to, and influence within, the eastern Mediterranean. [THREAD = THE SHAPING OF THE MODERN WORLD]

1768 [6th October] The Obreskov Affair: The Russian diplomat Aleksei Obreskov [no convenient biography] is arrested and imprisoned by the Ottoman authorities in Istanbul, triggering the First Russo-Turkish War [<=preceding entry]. [THREAD = THE SHAPING OF THE MODERN WORLD]


1769 Belief Systems [XIV - Superstition, Witchcraft, and Magic (Guyot)]: [Continued from 1760 (Schröpfer)] The French physician-inventor Edmé-Gilles Guyot [Wikipedia biography] publishes "Nouvelles Récréations Mathématiques et Physiques" [full text online], in which he explains, amongst other things, the still-popular cups and balls trick [YouTube demonstration]. He also develops the technique of projecting magic lantern images onto a curtain of vapour [YouTube demonstration (if you dare!)] rather than onto a solid screen, thereby intensifying the spookiness of the occasion [sub-thread continues at 1774 (Hooper) ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

********** A GREAT YEAR FOR INVENTIONS **********

1769 (A) On 29th April James Watt [<=1763] patents an improved Newcomen Engine with a separate condenser. However progress towards a marketable "Watt Engine" is slow (a) due to lack of capital, and (b) due to problems machining large iron castings with
sufficient precision. He is therefore quick to agree when John Roebuck [1760–1775] (still looking for an engine capable of draining his coal workings) offers to exchange the Carron Foundry's expertise at machining heavy iron for a share in the engine business. The Watt and Roebuck Partnership continues to develop its product range until 1775 [see q.v.]. (B) On 3rd July Richard Arkwright [Wikipedia biography] patents the "water frame" [see separate entry below]. (C) Having been working on it for four years, the French military engineer Nicolas-Joseph Cugnot [Wikipedia biography] builds a scale-model fardier à vapeur [= "steam dray"], a steam-powered three-wheeled cart heavy enough to cope with gun barrels and the like [image]. Two years later, when testing a full scale prototype at the Meudon Arsenal, he discovers that his boiler's performance is not good enough for sustained working. [THREAD = THE INDUSTRIAL REVOLUTION]

1769 3rd July Automated Spinning Machinery (II): [... Continued from 1764] Having moved to Nottingham, John Kay [of Warrington] [<=1764] has been providing technical advice to Richard Arkwright [preceding entry=>1771] in his construction of a prototype "water frame", a roller-based device for spinning carded raw cotton into thread. However when patenting this technology Arkwright ignores Kay's contribution, their working relationship breaks down, and there follows a protracted and largely fruitless court case as to patent rights. [THREAD = THE INDUSTRIAL REVOLUTION]

1770 Automation, Control, and Artificial Intelligence [XVII - The Turk (First Demonstrated)]: [Continued from 1768 (Jacquet-Droz)] The Hungarian engineer Wolfgang von Kempelen [Wikipedia biography] constructs "The Turk" - a chess-playing automaton [Wikipedia image and factsheet], and demonstrates same at the Austrian Court in Vienna, attracting considerable interest [sub-thread continues at 1771 (Darwin) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

RECOMMENDED VIEWING: For reasons which will shortly become apparent we strongly recommend that readers familiarise themselves with the shape, organisation, and mode d'emploi of this contraption, as shown in a recent Discovery Channel documentary - view it now.

1770 The British Secretary at War, William Barrington, 2nd Viscount Barrington [Wikipedia biography] instructs all the British Army's infantry regiments to train up a specialist light infantry company, that they might be better prepared for rapid deployment, backwoods skirmishing, and all the other things light infantry are good at. [THREAD = THE WW1 ARMIES]

1770 Benjamin Huntsman [1740<=>1810 (Krupp)] establishes a furnace complex at Attercliffe [nowadays a suburb of Sheffield] to produce crucible steel [<=1740]. [THREAD = THE INDUSTRIAL REVOLUTION]

1770 The London tinplated goods merchant John Miers I [no convenient biography=>1782] buys into the Llangyfelach Copperworks [<=1768].[THREAD = THE INDUSTRIAL REVOLUTION]

1770 Newly arrived in Britain from Holland the father-son team Jan Verbruggen [Wikipedia biography] and Pieter Verbruggen [no convenient biography] take over control of the Royal Brass Foundry from Andrew Schalch [<=1744] and set out on a programme of urgently needed upgrades. One of their greatest successes will be the horizontally mounted boring machine and finishing lathe, a system for turning solid cylindrical iron castings into finished cannon barrels. [THREAD = WW1 ARTILLERY]
1770 [28th January] The Lord North Parliament: Frederick, Lord North [2nd Earl of Guilford] becomes Prime Minister. His administration will survive until March 1782, presiding therefore over all but the final months of Colonial America's metamorphosis into the United States of America, from the Boston Massacre [=>next entry] to the Congress of the Confederation [=>1781]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1770 [5th March] The Boston Massacre: This series of events takes place in King Street [modern State Street], Boston, between a small (initially just a single sentry named Hugh White) detachment of eight British soldiers of the 29th Regiment of Foot [1768<=1782] commanded by Thomas Preston [Wikipedia biography] and a riot mob of “Sons of Liberty” [1765<=1773] determined to provoke an atrocity. The troopers duly oblige by allowing themselves to be provoked into a firefight in which five colonials become - Taliban style - martyrs for their cause. A state of civil uproar follows. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 PROPAGANDA AND ATROCITY] [THREAD = THE BATTLE FOR HEARTS AND MINDS]

ASIDE - THE COURT OF ENQUIRY: In an attempt to defuse the situation the soldiers in question, together with four civilians who had sided with them, were put on trial for murder. They were defended by a local lawyer [later the second President of the United States] John Adams [Wikipedia biography]=>1789], and such papers as have survived remain the closest approximation as to "the facts of the matter". It was firstly concluded that Captain Preston had not ordered his men to open fire, and he was therefore quickly acquitted. As to the private soldiers themselves it was adjudged that there had not been a simultaneous volley of shots, that is to say, that some one soldier had in the heat of the moment fired first. Six of the defendants were therefore found not guilty and the two who had been first to fire - Hugh Montgomery [Wikipedia biography] and Matthew Kilroy [Wikipedia biography] - were merely branded on the thumb, it being recognised that they had been sorely provoked. Finally the case of the four civilians was heard, and all four men acquitted.

WAR ART - THE BOSTON MASSACRE: Check out Paul Revere's [1765<=1773] contemporaneous "Bloody Massacre" engraving, which the (American) researchers Jowett and O'Donnell (1992) describe as follows: "While masquerading as a depiction of the actual events, this was in reality a propagandistic cartoon" (p65); also the earlier version by Henry Pelham [Wikipedia biography]; also Revere's rough sketch of the positioning of the bodies, made at or soon after the event and used as evidence during the trials described above. Whether Revere was in King Street during the massacre or arrived shortly after it, or whether he produced the diagram over the following days from journalistic reportage, is not reliably known.

ASIDE - PROPAGANDA VERSUS TRUTH: As is so often the case in easily politicised military actions of this sort [compare, for example, "Abu Ghraib", "My Lai", and "Bloody Sunday"], the civil memory does not dispassionately match the facts, and carefully constructed propaganda such as Revere's is one of the main culprits. Jowett and O'Donnell (op. cit.) explain it this way ...

"A classic example of newspaper propaganda was the so-called Boston Massacre [details]. This event provided the impetus for numerous propaganda attacks on the British in which the facts of the event were totally blown out of proportion or exaggerated to emphasise British tyranny" (p63).

As a result, much of what is popularly believed about the Boston riot by your average American or Briton derives not from balanced record but from the less measured words and images of political zealots at the time and sloppy historians since. The Bostonian Society [website] does its best to present the matter objectively and commemorates the riot with annual educational re-enactments - e.g., Diaz (2013 [online at http://anarmchairacademnic.wordpress.com/2013/03/05/the-boston-massacre/]).

RESEARCH ISSUE - EYE-WITNESS TESTIMONY: The difference between history and archaeology as sciences is that the former relies on subjective report and the latter on physical evidence. But subjective report, even five minutes after the event, is demonstrably
unreliable. This is because human memory evolved to handle gist rather than detail, doing a few things well rather than maintaining an exhaustive detailed record. We shall be dealing with this issue in detail in due course, but readers unfamiliar with the cognitive science of memory may care to inspect the following introductory material before proceeding ...

ASIDE - THE COGNITIVE SCIENCE OF EYE-WITNESS MEMORY: Check out the following entries in our Companion Memory Glossary: Attentional Failures; Cognitive Framing; Confabulation; Confusion; Contamination; Eye-Witness Memory Theory; Face Recognition; Flashbulb Memory; Inculcation; Memory Overload; Misinformation; Proactive Interference; Retroactive Interference; Stress Level; Suggestibility; Transference; and Viewpoint. Check out also the entries concerning the perception of gist in our Companion Aesthetics Timeline [scroll to 2003 (Nodine and Krupinski) and follow the onward pointers].

STUDENT EXERCISE: Readers who are uncertain of their ability as eye-witnesses should Play this "Whodunnit" video. This short video includes 21 deliberate visual tricks and inconsistencies - how many can you see?

1770 [19th April] The (proxy) marriage takes place of the 15-year-old Dauphin of France, Louis [XVI of France][1774 [Wikipedia biography=>1774], and the 14-year-old Habsburg heiress, Archduchess Maria Antonia of Austria [Dauphine of France][1770 [Queen Consort Marie Antoinette of France][1774 [1765<=1774], kid sister of Leopold II of Austria [1765<=1774]. Maria Antonia duly becomes Marie Antoinette, Dauphine of France. [THREAD = THE SHAPING OF THE MODERN WORLD]

1770 [4th June] The Falklands Islands Crisis [1770]: This is the name given to a diplomatic confrontation between Charles III of Spain [1761<=1788] and George III of Great Britain and Ireland, Elector of Hanover [1760<=1774] over their respective nations' claims to the Falkland Islands. The Spanish start the ball rolling by landing a 1400-man task force on the islands, and ejecting the much smaller British garrison. The outcome is the restoration of the status quo on 22nd January 1771, but no final withdrawal of the Spanish claim. [THREAD = THE SHAPING OF THE MODERN WORLD]

ASIDE - THE FALKLANDS ISLANDS IN WW1: The islands featured in the 1914 Battle of the Falkland Islands [=>1914 (8th December)].

1770 [5th-7th July] The Battle of Chesma: This three-day naval battle is fought in the eastern Aegean as part of the First Russo-Turkish War [1768 (6th October)] between a Russian fleet under Alexei Orlov [Wikipedia biography] and a considerably larger Ottoman fleet under Hüsameddin Pasha [Wikipedia biography]. The outcome is the total annihilation of the Ottoman fleet. [THREAD = THE SHAPING OF THE MODERN WORLD]

1770 [21st July] The Battle of Kagul: This battle is fought as part of the First Russo-Turkish War [1768 (6th October)] between a Russian army under Pyotr Rumyantsev [Wikipedia biography] and a much larger Ottoman army under İvazzade Halil Pasha [Wikipedia biography]. The outcome is a decisive Russian victory, with heavily disproportionate Ottoman casualties. [THREAD = THE SHAPING OF THE MODERN WORLD]

1771 Automation, Control, and Artificial Intelligence [XVIII - Voice Synthesis (Erasmus Darwin)]: [Continued from 1770 (The Turk)] The British physician Erasmus Darwin [Wikipedia biography] reports having constructed "a wooden mouth with lips of soft leather", which is capable of saying "mama, papa, map, and pam" (as reported in Riskin, 2003 [online]) [sub-thread continues at 1773 (Kratzenstein) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]
1771 The French saloniste Louis d'Épinay [Wikipedia biography] observes in her journal that "the knowledge the people acquire must, a little sooner, a little later, produce revolutions" (quoted in Taylor, 1990, p122). [THREAD = WW1 CENSORSHIP]

1771 Richard Arkwright [1769<=>1775] goes into volume production in a new water-powered mill at Cromford [map, etc.=>1775], Derbyshire. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** Cromford Mill is nowadays a UNESCO World Heritage museum [check out the Arkwright Society website].


1771 The Reynolds and Partridge Partnership [=1763] establishes a tinplating works at Redbrook [map, etc.], Gloucestershire. [THREAD = THE INDUSTRIAL REVOLUTION]

1772 Having become fascinated of late with the wonders of nature and the investigative power of experimental science the British clergyman Joseph Priestley [Wikipedia biography=>1774] publishes a treatise on "Optics" and turns his laboratory skills to the study of "airs" [continues at 1774 ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

1772 The British textiles engineer John Lees [Wikipedia biography] develops a "carding machine" [image in bio], a device for mechanising the combing out of raw cotton boll in readiness for spinning. [THREAD = THE INDUSTRIAL REVOLUTION]

1772 The British infantry officer Patrick Ferguson [Wikipedia biography=>1780 (7th October)] develops the Ferguson Rifle [image], a .615" calibre breech-loading flintlock. It will prove a powerful but not exceptionally reliable weapon, and so it fails to compete commercially against the Brown Bess muzzle-loader. [THREAD = WW1 SMALL ARMS]

********** THE POLES BECOME SECOND-CLASS PRUSSIANS **********

1772 [5th August] The First Partition of Poland: Currently on good terms with the Imperial Russians, Frederick II (the Great) of Prussia [1764<=>1778] conspires with them to break up the Polish-Lithuanian Commonwealth, creating West Prussia [continues 22nd September ...]. Altogether the Polish-Lithuanian Commonwealth loses about 30% of its territory and 50% of its population. [THREAD = THE SHAPING OF THE MODERN WORLD]

1773 Automation, Control, and Artificial Intelligence [XIX - Synthetic Speech (Kratzenstein)]: [Continued from 1770 (The Turk)] Working in Denmark, the German engineer Christian Kratzenstein [Wikipedia biography=>1779] constructs a sounding box whose internal reeds and resonance cavities are capable of producing the human sounds a-e-i-o-u [sub-thread continues at 1778 (Abbé Mical) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

1773 Johann Herder publishes "Correspondence Concerning Ossian and the Songs of Ancient Peoples" [Lieder alter Völker]. He argues that "a poet is the creator of the nation around him; he gives his people a world to see and has their souls in his hand to lead them to that world", and, noting the part played by the ancient Celtic bard Ossian in the history of Scotland, begins to seek out similar virtues in ancient German and Norse Volkspoesie (literally "peoples' poetry", especially when elevated to the status of ethnocentric mythology). Herder's intense patriotism, especially in popularising the use of the term Das Volk to
encompass a nation’s true identity, would return to haunt the world in the 1930s. [THREAD = WW1 ROMANTIC NATIONALISM]

1773 The "Public Hospital for Persons of Insane and Disordered Minds" opens at Williamsburg, VA, the first facility of its kind in the Americas. [THREAD = WW1 PSYCHIATRY]


1773 [16th December] "The Boston Tea Party": This series of events takes place in Boston Harbour as a political protest by the "Sons of Liberty" [1770<=1774] against the taxation policy of the British Parliament in general, and the Tea Act [<=10th May] in particular. Led locally by Paul Revere [1770<=1774] a party of activists boards some recently arrived British tea ships and forcibly dumps their cargo into the harbour. [THREAD = THE SHAPING OF THE MODERN WORLD] [THREAD = THE BATTLE FOR HEARTS AND MINDS]

ASIDE: As with the Boston Massacre [<=1770 (5th March)] this new confrontation was thoroughly milked by the Continentals for its propaganda value, thus …

"Samuel Adams was considered to be the chief architect of the anti-British propaganda activities [...] and became known as the 'master of the puppets' because of his ability to orchestrate and manipulate others. [...] Operating from his base as a journalist with the Boston Gazette, Adams put together his Committee of Correspondence in 1772, and this group became the propaganda organisation for the Revolution. Perhaps Adams' greatest individual propaganda coup was the organisation of the Boston Tea Party [...] a classic example of provocation, which was turned into a major item of propaganda when the British predictably retaliated" (Jowett and O'Donnell, 1992, p64).

Nowadays, the Boston Tea Party Museum takes pains to ensure that the events of 1773 are not forgotten - check out their website at http://www.bostonteapartyship.com/.

1774 Belief Systems [XV - Superstition, Witchcraft, and Magic (Hooper)]: [Continued from 1769 (Guyot)] One William Hooper [no convenient biography] publishes a compendium of mathematical and physical party tricks under the title "Rational Recreations" [Amazon entry] [sub-thread continues at 1776 (Séraphin) ...], [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1774 Henry Cort [Wikipedia biography] =>1779] manages his wife's inheritance, namely an ironworks at Fontley [map =>1779], near Portsmouth, where he produces everyday naval ironware. [THREAD = THE INDUSTRIAL REVOLUTION]

********** OXYGEN IS DISCOVERED **********
********** (BUT BY ANOTHER NAME) **********

1774 As part of his experimental investigations of "airs" Joseph Priestley [=1772] finds that the gas obtained when heating mercuric oxide both supports life in a laboratory mouse and supports combustion far more vigorously than does the atmosphere in
general. He calls this new gas "dephlogisticated air" and publishes his findings two years later. [THREAD = THE INDUSTRIAL REVOLUTION]

1774 The British artilleryman Robert Melville [Wikipedia biography] demonstrates a short-range artillery piece capable of firing a 68-pound ball using only 5.5 pounds of powder. The production contract goes to the Carron Ironworks, Scotland, and so the name by which such ordnance becomes known is the "carronade". [THREAD = WW1 ARTILLERY]

1774 [10th May] Upon the death of Louis XV of France [<=1745] his titles pass to his grandson as Louis XVI of France [1770=>1787], thereby elevating his wife Archduchess Maria Antonia of Austria, Dauphine of France [1770=>1789] to Queen Consort. [THREAD = THE SHAPING OF THE MODERN WORLD]

1774 John Wilkinson [1757=>1775] patents a boring machine for milling solid iron castings, whereby the casting is rotated around the cutting tool. This process greatly improves the quality of cylinders for steam engines and barrels for guns. [THREAD = WW1 ARTILLERY]

********** FIRST ITALIAN PSYCHIATRIC HOSPITAL **********

1774 [12th February] The Legge Sui Pazzi: Grand Duke Leopold II of Tuscany [1770=>1787] approves the Legge Sui Pazzi [= "Law on the Insane"], an historically important first step forward in the enlightened treatment of mental illness in Italy. [See next 1787 (Vincenzo Chiarugi)] [THREAD = WW1 PSYCHIATRY]

1774 [12th February] The marriage takes place of John Hanbury III [1765=>1784] and Jane Lewis [no convenient biography]. Their union will be blessed with the following three sons...

27th January 1775 John Capel Hanbury [no convenient biography=>1784]
6th October 1776 Capel Hanbury[-Leigh]1797 [University of Toronto biography=>1795]

[THREAD = THE INDUSTRIAL REVOLUTION]

1774 [13th May] Thomas Gage [1768=>31st August] is appointed Governor of the Province of Massachusetts Bay. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE RUSSIANS EXPAND SOUTHWARD **********

1774 [1st August] The Treaty of Küçük Kaynarca: This treaty brings the First Russo-Turkish War [<=1768 (6th October)] to a close. It awards Russia the Black Sea/Azov Sea ports of Azov, Kerch, and Kherson, and recognises Russia's right to monitor the treatment of Orthodox Christians in Ottoman territory. The Crimean Khanate remains nominally independent, but only until 1783 when it, too, is annexed by Russia. [THREAD = THE SHAPING OF THE MODERN WORLD]

1774 [31st August-1st September] The "Powder Alarm" and the "Minutemen": In an attempt to protect his own weapons from leaking into the hands of the rebellious Colonials Thomas Gage [13th May<=1775] orders Middlesex County sheriff David Phips [no convenient biography] to empty the gunpowder magazine at Somerville, just north of Boston, and to bring its contents within the city for safe keeping. For whatever reason this act is immediately interpreted as hostile by the Colonials, motivating them into several days of ominous murmurings and frownings against the British authorities. These confrontations soon die away but not before the "Sons of Liberty" [<=1773] have established a province-wide network of rapid-response mounted militia known as the "Minutemen", perhaps the most famous of whom is the aforementioned Paul Revere [1773<=1775]. [THREAD = THE SHAPING OF THE MODERN WORLD]
The First Continental Congress: This inaugural congress of the breakaway American colonies is attended by 56 delegates, not least George Washington [1758<=1775], and formally petitions George III of Great Britain and Ireland, Elector of Hanover [1770<=1789] with a list of colonial grievances. A Second Continental Congress will follow in May 1775 [=>q.v.]. [THREAD = THE SHAPING OF THE MODERN WORLD]

The French military engineer Marchant de la Houlière [no convenient biography] visits John Wilkinson [1774<=1777] on a fact-finding mission. Amongst other things they note how good war is for their respective industries [full story in Morse (2011 online)]. [THREAD = WW1 ARTILLERY]

Richard Arkwright [1771<=1777] is granted a patent on a new water-powered carding machine [cf. 1772 (John Lees)], which he installs to good effect at his Cromford Mill [<=1771] and (under highly profitable licence) elsewhere. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: Traditional landowners aside, Arkwright would become by the time of his death in 1792 the richest man in Britain.

The Gloucestershire businessman David Tanner [no convenient biography=>1784] buys into a small but long-established ironworks at Tintern [map, etc.], Gloucestershire. [THREAD = THE INDUSTRIAL REVOLUTION]

John Roebuck [<=1769] goes bankrupt and settles his share in the Watt and Roebuck Partnership [<=1769] onto one of his creditors, Matthew Boulton [<=1765], who then joins with James Watt [<=1763] to found the Boulton and Watt Partnership [=>1788]. Adopting the new Wilkinson cylinder boring technique [1774<=1777], they are able to install their first high efficiency steam engines in 17761. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: The oldest surviving Boulton and Watt Engine is Old Bess (1777), now decommissioned in the Science Museum, London [website].

The American inventor David Bushnell [Wikipedia biography=>1777] devises a timing mechanism for setting off a waterproofed gunpowder charge below an enemy ship's waterline, and (even more cleverly) builds a one-man submersible vehicle - the Turtle [Wikipedia shipography] - to deliver it. [=>1777] [THREAD = THE WW1 SUBMARINE NAVIES]

John Capel Hanbury, born this day, are entered under his parents' wedding day [<=1774 (12th February)]. [THREAD = THE INDUSTRIAL REVOLUTION]

The "Midnight Ride": Having received intelligence that the British intend moving on Concord the following morning [=next two entries] Paul Revere [=1774] rides northward out of Boston through the hamlets of Somerville, Medford, and Arlington, thereby initiating a Minuteman alert throughout Middlesex County. Rudely thus awakened several thousand militiamen head out into the night to make history. [THREAD = THE SHAPING OF THE MODERN WORLD]

ASIDE: Later commentators will have him yelling "The Redcoats are coming!!" (or some such) as he goes, but this is probably apocryphal.

The American War of Independence, 1775-1783: This war is fought between Britain's colonial administration in North America and a secessionist
government set up by the Continental Congress. The Continentals draw on the newly constituted Continental Army, supplemented by local militia, secessionist native Americans, and French. Here are some of the main events ...

The Battle of Lexington-Concord, 1775; The Seizing of Fort Ticonderoga, 1775; The Second Continental Congress, 1775; The Battle of Bunker Hill, 1775; The Battle of Quebec, 1775; The Evacuation of Boston, 1776; The Battle of Long Island, 1776; The Battle of White Plains, 1776; The Battle of Trenton, 1776; The Siege of Fort Ticonderoga, 1777; THE SARATOGA CAMPAIGN, 1777 [see separate indexing entry]; The Battle of the Kegs, 1777; The Battle of Waxhaws, 1780; The Battle of King's Mountain, 1780; The Battle of Cowpens, 1781

The overall outcome is a successful breakaway for the Continentals from the British crown, and the formation of the United States of America. [THREAD = THE SHAPING OF THE MODERN WORLD]

ASIDE - PROPAGANDA IN THE AMERICAN WAR OF INDEPENDENCE: Already dealt with in the ASIDES to the entries for the Boston Massacre [<=1770 (5th March)] and the Boston Tea Party [<=1773 (16th December)].

1775 (19th April) The Battle of Lexington-Concord: This battle is fought as part of the American War of Independence [<= preceding two entries] between a British army under Francis Smith [Wikipedia biography] and a Continental militia force under (at Lexington) John Parker [Wikipedia biography] and (at Concord) James Barrett [no convenient biography]. Smith's regulars are trying to open the road between Boston and Lexington, which means sweeping the countryside for illegal armaments. This brings them into face-to-face with Parker's irregulars on Lexington Common. The Continentals' stance is quietly hostile, and they present themselves as an armed unit rather than as a crowd. It will emerge after the event that Parker has briefed them that this will be an historic confrontation. They have been instructed to stand their ground, although not to fire unless fired upon. More ominously they have also been instructed that if the British "mean to have a war" this is where it is going to start! It is then unclear who fires the first shot but it happens and in a brief firefight the British rush forward and Parker withdraws his men toward Concord, seven miles away. Here, after digging up some concealed cannon, the British are engaged by Barrett's militia, now heavily reinforced from across the county. In the resulting battle the British vanguard units suffer considerable losses and fall back in disorder until rescued by a reinforcing column in mid-afternoon. Over the coming days the Continentals continue to build up their numbers, soon putting Boston into a state of siege [=>next entry]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1775 (19th April-17th March 1776) The Siege of Boston: This 11-month siege is fought out as part of the American War of Independence [<= preceding three entries] between a Continental army under Artemas Ward [Wikipedia biography] and the British garrison at Boston, MA, under Thomas Gage [1774<=25th May]. Because Boston is surrounded on three sides by the sea, the Continentals are free to concentrate all their forces on the landward approaches, an area known as the "Roxbury Neck". Reinforcements will arrive from Britain a month later [=>25th May], followed by the did-we-win-or-not Battle of Bunker Hill [=>17th June]. By then, however, the war will be moving further afield and the British will abandon the city and redeploy their forces elsewhere the following spring [=>1776 (10th March)],[THREAD = THE SHAPING OF THE MODERN WORLD]

1775 [10th May] **The Seizing of Fort Ticonderoga**: This event takes place as part of the American War of Independence [<=19th April] between a Continental militia band known as the "Green Mountain Boys" led by Ethan Allen [Wikipedia biography] and Benedict Arnold [Wikipedia biography] and the unsuspecting British garrison at Fort Ticonderoga under William Delaplace [no convenient biography]. The outcome is a bloodless Continental victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1775 [10th May-1781] **The Second Continental Congress (2CC)**: [See firstly 1774 (5th September)] Now in a state of war this second gathering of the breakaway American colonies produces a new statement of grievances and establishes both the U.S. Post Office (with Benjamin Franklin [1763<=>1777] as the first U.S. Postmaster General) and the Continental Army. Of the 56 delegates, 32 "are known to be Masons" (Carter, 1955 online). The 2CC will manage the Declaration of Independence on 4th July 1776 and fund the armed struggle against Britain. This includes asking Daniel Morgan [1755<=>31st December] to set up a volunteer rifle company commonly known as "Morgan's Sharpshooters", which will serve in the Siege of Boston and with Benedict Arnold [preceding entry<=31st December] at the Battle of Quebec [=>31st December].

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1 **ASIDE - POSTMasters AS SPIES**: We have already noted that Postmasters General are well-placed to be intelligence chiefs [e.g., < =1655 (John Thurloe); see also this Companion Resource]. **STUDENT EXERCISE [ALL LEVELS]**: Imagine that a letter has fallen into your possession as Postmaster. Working in small groups, suggest how you can read this letter without arousing the suspicions of the intended recipient. The answer to this question may be found in the espionage exhibits at the Combined Military Services Museum, Maldon. Nor does it always have to be the Postmaster General h/self. In 1963 the Dallas Postal Inspector, Harry D. Holmes seems to have been collaborating in a Bureau of Alcohol, Tobacco, and Firearms sting on illegal gun-running nationally. It has been suggested that this sting could well have involved evidential tracking of the Mannlicher-Carcano rifle so strongly associated with Lee Harvey Oswald. It certainly allowed Holmes to lead the final 45 minute interrogation of Oswald, mere minutes before the latter was shot down by gun-runner Jack Ruby [check it all out].

2 **ASIDE**: Prior to the American War of Independence we refer to American-born colonial forces as "British", during it we refer to them as the "Continental Army", and after it we refer to them as the "U.S. Army" (except during the American Civil War when we distinguish between the "Union Army" and the "Confederate Army"). Units of the British army defending the Americans prior to the war, and fighting them during it, are referred to as "British regulars" (except when they were "Hessian" mercenaries).

3 **ASIDE - THE COMMITTEES OF THE SECOND CONTINENTAL CONGRESS**: When necessary, the 2CC devolved aspects of its operations onto sub-congresses known as "Committees". Some of the famous names of the Revolution served on one or other of these Committees, and they would in due course evolve into the various departments of state. Two of the most important ones are the Committee of Five [a.k.a. Declaration Committee] and the Committee of Secret Correspondence. Benjamin Franklin served on both.

The 2CC will eventually be replaced by the Congress of the Confederation on 1st March 1781 [=>q.v.]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1775 [25th May] A British fleet arrives at Boston and disembarks 4500 troops under William Howe [5th Viscount Howe] [1779] John Burgoyne [Wikipedia biography] and Henry Clinton [Wikipedia biography]. Over the ensuing three weeks the new generals consult with Thomas Gage [<=18th April] as to the best strategy to break the Continental Army's command of the landward approaches to the city [<=1775 (19th April)] The plan which emerges is to create a second front on the Charlestown Peninsula a mile to the north across the Charles River [continues 17th June...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1775 [17th June] **The Battle of Bunker Hill**: [Continued from 25th May] This battle is fought as part of the American War of Independence [<=19th April] between elements of the British garrison in Boston under **William Howe** [5th Viscount Howe] [1774<=>1776] and **Henry Clinton** [25th May<=>1776] and the besieging Continental troops across the Charles River on the heights of the Charlestown Peninsular. The main Continental position is a makeshift earthwork redoubt at the top of Breeds Hill which, together with similar fortifications at the top of Bunker Hill 600 yards to the north-west, poses a significant threat to British warships patrolling the river below. The British attack takes place uphill from Charlestown and Moulton Point to the south and east, respectively\(^1\), and is under the immediate command of Howe himself and **Sir Robert Pigot** [2nd Baronet] [1777] [Wikipedia biography]. Two such assaults are beaten back with heavy British losses, and only after reinforcements are ferried across the Charles River from Boston are the hilltops taken, whereupon the Continentals fall back in good order to prepared positions at Cambridge, beyond the Charlestown Neck. Only the most severely wounded are left behind. The outcome is a British victory, but only at the cost of heavily disproportionate losses\(^2\). The battle is noteworthy in the present context for demonstrating the cost in lives of advancing in close order against prepared positions well-manned with marksmen. [THREAD = THE SHAPING OF THE MODERN WORLD]

\(^1\) **ASIDE**: This against the advice of General Clinton, who would have preferred landings further up the Charles River to cut off the Charlestown Peninsula from the main Continental concentration at the Roxbury Neck.

\(^2\) **ASIDE**: Clinton’s view was that the British could ill afford victories as expensive as this had been, likening it to **Pyrrhus of Epirus**'s famously costly victories at Heraclea and Asculum [<=280BCE].

1775 [??th September] **Abraham Darby III** [1768<=>1781] sets up a company to construct an iron bridge across the River Severn at Coalbrookdale, Shropshire, using cast iron components supplied by his **Coalbrookdale Ironworks** [1768<=>1802]. [THREAD = THE INDUSTRIAL REVOLUTION]

1775 [10th November] **Lord North** [<=1770] appoints **George Germain, 1st Viscount Sackville** [1759 (1st August<=>1776)] as Secretary of State for the Colonies, and together they plan Britain’s post-Lexington war strategy. [THREAD = THE SHAPING OF THE MODERN WORLD]

1775 [31st December] **The (1775) Battle of Quebec**: This battle takes place as part of the Canadian operations of the American War of Independence [<=19th April]. It is fought between two expeditionary columns of the Continental Army, one commanded by **Richard Montgomery** [Wikipedia biography => dies this day] and the other by **Benedict Arnold** [10th May<=>1777], and the British garrison at Quebec under **Guy Carleton, 1st Baron Dorchester** [Wikipedia biography]. Weakened by their three-month march and smallpox in the ranks, and short of ammunition, the Continental assault soon falters, Montgomery is killed in a blast of grapeshot, and 372 men, including **Daniel Morgan** [10th May<=>1777] are taken prisoner. [THREAD = THE SHAPING OF THE MODERN WORLD]

**WAR ART**: Check out John Trumbull's (1786) "The Death of General Montgomery".

**TELLING IT LIKE IT IS - HEAD SHOTS**: This is as good a place as any to introduce the problem of head injuries, which are inherently very messy. John Turnbull’s depiction of General Montgomery’s death deliberately conceals the gory details [Montgomery was hit in
the head by grapeshot, which means by a least one projectile around an inch in diameter]. Interested readers will be able to track down online a number of modern forensic science images of shot gun suicides which will give a fair sense of the true extent of Montgomery's wound.

TELLING IT LIKE IT IS - BIOLOGICAL WARFARE: We have explained elsewhere that it is quite likely that the smallpox in the Continental lines had been deliberately inflicted by the British, whose troops had been "variolated" against the disease. See the entry for Passaging I in the Companion Resource.

1775 The British gunsmith Henry Nock [Wikipedia biography] takes out his first gunsmith's patent and sets out on a 30-year career supplying bespoke weaponry to the British armed forces and aristocracy. His product portfolio includes a volley gun (1779) [indicative image] and pepperbox pistols [indicative image], both offering short-term superiority of fire in a mêlée. [THREAD = WW1 SMALL ARMS]

1776 Belief Systems [XVI - Superstition, Witchcraft, and Magic (Séraphin)]: [Continued from 1774 (Hooper)] The French showman François D. Séraphin [Wikipedia biography] opens a shadow play theatre in Paris [sub-thread continues at 1781 (Samuel Johnson) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1776 The French military engineer Marc René, Marquis de Montalembert [<=1750], now with 44 years' experience under his belt, publishes a treatise entitled "La Fortification Perpendiculaire", in which he sets out the design principles for successful fortifications. He argues that the bastion system [<=1527 (Albrecht Durer)] has become obsolete, and that what is needed instead is a system of regularly placed sharp bends with capouniers [define] and plentiful casemates [define]. This will be the design of choice for the Séré de Rivières upgrades to France's fortifications after the Franco-Prussian War [=>1872]. [THREAD = WW1 ARTILLERY]

1776 The Capture of New York City: This sequence of operations takes place as part of the Northern seaboard operations of the American War of Independence [<=1775 (19th April)] between a British invasion army (including the troops evacuated from Boston earlier in the year) under William Howe [5th Viscount Howe] and Charles, Earl Cornwallis [Wikipedia biography] and a Continental army under George Washington [1775<=27th August]. The initial British landings take control of Staten Island, and are followed by Long Island [=>27th August], Lower Manhattan and the town of New York on 15th September, and Rhode Island on 8th December. This coastal bridgehead will remain intact until the war ends [=>1783 (3rd September)], but progress further inland will prove too costly to maintain. [THREAD = THE SHAPING OF THE MODERN WORLD]

1776 The Continental Declaration of Independence: [...] The Second Continental Congress formally adopts the Declaration of Independence [full text online] and begins the long and complicated process of drafting new Articles of Confederation. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE BRITISH OUT-THOUGHT **********

1776 The Battle of Long Island: This battle is fought as part of the New York operations American War of Independence [<=1775 (19th April)] between a British/Hessian army under William Howe [5th Viscount Howe] and a Continental army under George Washington [1775<=27th August]. The battle is drawn out and the British army under Howe is able to withdraw intact. [THREAD = THE SHAPING OF THE MODERN WORLD]
October], Charles, Earl Cornwallis, [3rd July<=1780], and Henry Clinton [1775<=1780] and a Continental army under George Washington [3rd July<=28th October] and Israel Putnam [Wikipedia biography]. The outcome is a British victory, but only technically so, for those words conceal a major military blunder¹.

¹ASIDE: Howe's forces outnumbered Washington's by roughly three-to-one and the engagement on 27th August went clearly enough to the British, with the Continentals retreating to hastily fortified positions on top of the Brooklyn Heights. Here they have their backs to New York City's East River, overlooking Manhattan South across the water. The stand-off continues until the night of 29th-30th August whereupon, with meticulous subterfuge Washington spirits his troops across to safety in Manhattan without arousing British suspicions.

1776 [6th October] Details for Capel Hanbury[-Leigh]¹⁷⁹⁷, born this day, are entered under his parents' wedding day [<=1774 (12th February)]. [THREAD = THE INDUSTRIAL REVOLUTION]

1776 [28th October] The Battle of White Plains: This battle is fought as part of the American War of Independence [<=1775 (19th April)] between a British/Hessian column under William Howe [5th Viscount Howe]¹⁷⁹⁹ [27th August<=1777] and a Continental army under George Washington [27th August<=25th December]. The outcome is a British/Hessian victory. [THREAD = THE SHAPING OF THE MODERN WORLD]


********** THE BRITISH OUT-THOUGHT (AGAIN) **********

1776 [25th-26th December] The Battle of Trenton: Having been driven back into the largely undeveloped Pennsylvania by the battles of Long Island [<=17th June] and White Plains [<=28th October] the Continental high command resolves on a bold mid-winter counter-strike back across the Delaware River. Their army is led by George Washington [28th October<=1777] and Nathanael Greene [Wikipedia biography]¹⁷⁸¹ and their objective is a brigade of Hessians in British service quartering at Trenton, NJ. The Continentals achieve complete tactical and strategic surprise, and around 1000 Hessians are killed or captured. [THREAD = THE SHAPING OF THE MODERN WORLD]

WAR ART: As an example of the artistic glorification of military achievement, check out Emanuel Leutze's (1851) "Washington Crossing the Delaware".

********** MAJOR IMPROVEMENTS IN NAVAL SIGNALLING **********

1777 About this time Sir Charles Henry Knowles [Wikipedia biography]¹¹⁷² (2nd April) publishes "A Set of Signals for a Fleet on a Plan Entirely New", in which he proposes a new numeric signalling system. He then persuades Richard Howe [1st Earl Howe]¹³⁸⁸ [Wikipedia biography]¹¹⁷² to test it (Corbett, 1905 online). The system will be evaluated in the fullness of time as a quantum leap forward in signalling theory and practice, thus ...

"... when the change came it was sweeping. It was no mere substitution of a new set of Instructions, but a complete revolution of method. The basis of the new tactical code was no longer the Fighting Instructions, but the Signal Book. Signals were no longer included in the Instructions, and the Instructions sank to the secondary place of being 'explanatory' to the Signal Book" (Corbett, op. cit., p116).

The beauty of Knowles' new system lies in the fact that it communicates complex ideas in short but very precise form by reducing them to three or four numerals, thus
allowing the curtest of flag hoists to direct highly sophisticated battle manoeuvres by
all the ships at one's disposal, both jointly and severally, provided only that they have
line of sight (and have not mislaid their Signals Book) [for specific examples see 1782 (2nd April)].
Sir Julian Corbett [Wikipedia biography=>1905] will later conclude that Howe's 1782 revision
of the Royal Navy's "Fighting Instructions" [1715<==>1782] incorporates many of
Knowles' proposals. [THREADS = THE WW1 SURFACE NAVIES and WW1 SIGNALLING AND
COMMUNICATIONS]

1777 A site at Springfield, MA, is chosen to host a "National Armoury" for the
Revolutionary Army. [THREAD = WW1 SMALL ARMS]

\[ASIDE\]: The "Springfield Armoury" is legendary (a) for the quality, product range, and
volume of its output over nigh on two centuries (it did not finally close until 1968), and (b)
as a case study in industrial history, factory organisation, and management practice. Many
of the buildings have now gone, but those which remain have been reworked as a US National
Historic Site [see museum website]. Raber et al (1989/2006 full text online) provide a
gloriously detailed history, if interested.

1777 Anthony Bacon I [1765<==>1780] extends\(^1\) the Plymouth Ironworks [1765<==>1786].
[THREAD = THE SHAPING OF THE MODERN WORLD]

\(^1\)\[ASIDE\]: See maps and images at http://www.alangeorge.co.uk/plymouthironworks.htm. The remains
of the extended ironworks are nowadays linked by a heritage trail [see tourist website].

1777 Richard Arkwright [1775<==>1779] installs a steam engine to recirculate the water used
at his cotton mill at Wirksworth, Derbyshire. This arrangement allows more
waterwheels to be supported by a given stream and reduces downtime during periods
of dry weather. Around the same time one Edward Chadwick [no convenient biography]
builds a cotton mill at Birkacre, Lancashire, and rents it to Arkwright, who kits it out
with his new power-driven water frames [<=1769]. [THREAD = THE INDUSTRIAL REVOLUTION]

********** A MAN WITH A MISSION **********

1777 Benjamin Franklin [1775<==>1783] arrives in Paris to take up the post of U.S.
"Commissioner" to France. His brief is to ease the flow of French monies into William
Bingham's Martinique operation [check it out], and generally to persuade France to enter
the war on the Continentals' side the following year [=1778 (6th February)]. [THREAD = THE
SHAPING OF THE MODERN WORLD]

set up a modern ironworks at d'Indret, near Nantes. [THREAD = WW1 ARTILLERY]

********** THE AGE OF ROMANTICISM IS BORN **********

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the play "Sturm und Drang" [= "Storm and Urge"], in which he allows free dramatic rein to
the violent emotions of the American Revolution. This title catches on and soon
becomes used to describe any art-form which sets out to explore the emotional
extremes of human existence. [THREAD = WW1 ROMANTIC NATIONALISM]

RESEARCH ISSUE - ROMANTICISM, NATIONALISM AND WAR: The rise of the
so-called "Romantic Movement" is one of the most debated phenomena in European history,
and will be explored in detail in due course, in the suspicion that the romanticisation of
nationalism will be perhaps the single greatest cause of WW1.
1777 [13th June] Upon his release from captivity, Daniel Morgan (1775 <> 19th September) is asked by George Washington (1776 <> 11th September) to re-form his Sharpshooters company as a full Rifle Regiment. This unit is then assigned to the Continental Army's Northern Command to assist its Saratoga Campaign, contributing significantly to its eventual victory. [THREAD = THE WW1 ARMIES]

1777 [14th June-7th October] The Saratoga Campaign: This four-month campaign is fought as part of the upstate operations of the broader American War of Independence (<=1775 (19th April)) in a British attempt to keep the Continental Army's Northern and Southern Commands from combining their resources by attacking them separately. The Northern Campaign begins with John Burgoyne (1776 <> 2nd July) sending his army crossing the Hudson River, and is then conveniently considered as the following separate engagements as the narrative unfolds ...

The Siege of Fort Ticonderoga, 1777; The Battle of Oriskany, 1777; The Battle of Bennington, 1777; The Battle of Brandywine Creek, 1777; The Battle of Freeman's Farm, 1777; The Battle of Bemis Heights, 1777

[THREAD = THE SHAPING OF THE MODERN WORLD]

1777 [2nd-6th July] The Siege of Fort Ticonderoga: This brief siege is fought out as part of the Saratoga Campaign of the American War of Independence (<=1775 (19th July)) between a besieging British army under John Burgoyne (14th July <> 16th August) and the Continental garrison at Fort Ticonderoga under Arthur St. Clair [Wikipedia biography]. The outcome is a nearly bloodless British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1777 [22nd July] William Brownrigg (<=1765) is replaced as partner in the Cyfarthfa Ironworks (1765 <> 1782) by the businessman Richard Crawshay [Wikipedia biography] >1784]. Under Crawshay's direction the company will develop its armaments contracts with the Board of Ordnance. [THREADS = THE INDUSTRIAL REVOLUTION and WW1 ARTILLERY]

1777 [6th August] The Battle of Oriskany: This battle is fought as part of the Saratoga Campaign of the American War of Independence (<=14th June) between an ambushing British/Native American army under Sir John Johnson [Wikipedia biography] and (Mohawk) Chief Joseph Brant [Wikipedia biography] and a Continental army under Nicholas Herkimer [Wikipedia biography] > dies of wounds received this day]. The outcome is a British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1777 [13th August] David Bushnell (1775 <> 1778) mounts a drift mine attack on HMS Cerberus [Wikipedia shipography], at anchor in Niantic Bay, CT, but to little effect. [=>1778] [THREAD = THE WW1 SURFACE NAVIES]

1777 [16th August] The Battle of Bennington: This battle is fought as part of the Saratoga Campaign of the American War of Independence (<=14th June) between a British column under Friedrich Baum [Wikipedia biography] > dies this day] and Heinrich von Breymann [Wikipedia biography], and a Continental column under John Stark [Wikipedia biography]. The British are trying to capture the Continental supply depot at Bennington, VT, but are decisively prevented from doing so, losing 900 or so killed, wounded, or captured out of the 1400 initially available [i.e., 64% losses]. The battle is noteworthy in the present context for reducing British overall strength by some 1000 men, and for demoralising their Native Indian scouts. [THREAD = THE SHAPING OF THE MODERN WORLD]
1777 [11th September] **The Battle of Brandywine Creek:** This battle is fought as part of the American War of Independence [<=1775 (19th April)] between a British army under **William Howe** [5th Viscount Howe] and a Continental army under **George Washington** [13th June<=4th October]. The outcome is a British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1777 [19th September] **The Battle of Freeman's Farm:** This battle is fought as part of the Saratoga Campaign of the American War of Independence [<=1775 (19th June)] between **Benedict Arnold**'s division of the Continental Army and a British attempt to take some high ground to the west of the main Continental force. The British commanders are (on the left) the Hessian **Frederick Riedesel** [Wikipedia biography], (in the centre) **James Hamilton** [Wikipedia biography], and (on the right) **Simon Fraser** [Wikipedia biography]. The outcome is a tactical [i.e., on the day] victory for the British but a profound strategic defeat [because despite winning the battle they are closer to losing the war]. The battle is noteworthy in the present context for the deliberate targeting of British officers by **Daniel Morgan**'s sharpshooters, thereby quickly eroding their command coherence. [THREAD = THE SHAPING OF THE MODERN WORLD]

1777 [4th October] **The Battle of Germantown:** This battle is fought as part of the Philadelphia operations of the American War of Independence [<=1775 (19th April)] between a British army under **William Howe** [5th Viscount Howe] and a Continental army under **George Washington** [11th September<=1778]. The outcome is a British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** NEW SNIPING RECORD SET **********

1777 [7th October] **The Battle of Bemis Heights:** This battle is fought as part of the Saratoga Campaign of the American War of Independence [<=1775 (19th April)] between a British army under **John Burgoyne** [2nd July] and a Continental army under **Horatio Gates**. The outcome is a Continental victory, followed on 17th October by a wholesale British surrender. The battle is noteworthy in the present context for demonstrating the value of long-range marksmanship, when one **Timothy Murphy** sharp-shoots his way into the history books by killing the British commander, **Simon Fraser** [19th September<=dies this day], at 500 yards range with a Kentucky Rifle. This record will stand for nigh on 100 years [1864 (9th May)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**ASIDE:** Brigadier-General Fraser was one of the most experienced infantry commanders in the British Army in this campaign, and Rifleman Murphy had been specifically directed to target him. Had the General lived he might well have held on to the Americas as British colonies. [Compare =>1864 (Battle of Spotsylvania Courthouse)]


1777 [30th December] Upon the death without heir of **Maximilian III Joseph, Elector of Bavaria** [1745<=1778] rival candidates emerge as to who should inherit his titles [continues 1778 (?7th July) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1778 Automation, Control, and Artificial Intelligence [XX - Voice Synthesis (Abbé Mical)]: [Continued from 1773] The French priest **Abbé Mical** demonstrates a pair of talking heads to the Paris Academy of Sciences. Each has a number of artificial glottises and is capable of uttering short sentences (Riskin, 2003 online) [sub-thread continues at 1779 (Von Kempelen) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]
1778 Thomas Atkinson [no convenient biography] and William Barrow [no convenient biography] acquire the Sirhowy [A] Ironworks [1750<=1794] and change it from charcoal fuel to coke, thereby prompting the first coal workings in the vicinity. [THREAD = THE INDUSTRIAL REVOLUTION]

1778 [6th January] "The Battle of the Kegs": David Bushnell [<=1777] mounts another drift mine attack, this time down the Delaware River against the British ships off Philadelphia, but again to little effect. The weapon used is a specially waterproofed keg of gunpowder fitted with a internal flintlock mechanism triggered by light impact against a solid object. The battle will accordingly often be referred to as the "Battle of the Kegs". Notwithstanding the lack of a headline sinking, George Washington [1777<=1781] recognises Bushnell’s pioneering efforts by putting him in charge of the Continental Army's Corps of Sappers and Miners. [THREAD = WW1 MILITARY ENGINEERING]

********** FRANKLIN'S MISSION PAYS OFF **********

1778 [6th February] France formally joins forces with the Continentals to help bring the American War of Independence [<=1775 (19th April)] to a speedy conclusion. [THREAD = THE SHAPING OF THE MODERN WORLD]

1778 [23rd February/5th May] The German soldier of fortune Frederick von Steuben [Wikipedia biography] is put in charge of the recruit training program at the Continental Army's main base-camp at Valley Forge, PA. He does this job so well that on 5th May he is promoted to replace Thomas Conway [<=1777] as Inspector-General of the Continental Army. [THREAD = THE WW1 ARMIES]

********** THE LAST OF THE OLD-STYLE WARS **********
********** GERMAN-AUSTRIAN RIVALRY INTENSIFIES **********

1778 [7th July] The War of the Bavarian Succession, 1778-1779: [... Continued from 1777 (30th December)] This war is fought between the Archduchy of Austria under the Holy Roman Emperor, Archduke Joseph II of Austria [1765<=1780] and an alliance of Prussia, Saxony, and Bavaria fronted by Frederick II (the Great) of Prussia [1772<=1786]. The casus belli is a disagreement over whether the Habsburgs should come to power in Bavaria following the death without heir of (the House of Wittelsbach) Maximilian III Joseph [<=1777]. After a year of relatively insignificant engagements the issue will be resolved diplomatically and to Austrian disadvantage by the Treaty of Teschen [>=1779 (13th May)]. In the present context the war’s greater significance is that it is the last "limited" war before Lazare, Count of Carnot [Wikipedia biography] (1793) shows humankind how to do "Total War". [THREAD = THE SHAPING OF THE MODERN WORLD]

1778 [28th December] Details for Charles Hanbury-Tracy [<=1798 (1st Baron Sudeley)]1837, born this day, are entered under his parents' wedding day [<=1774 (12th February)]. [THREAD = THE INDUSTRIAL REVOLUTION]

1779 Automation, Control, and Artificial Intelligence [XXI - Synthetic Speech (Von Kempelen)]: [Continued from 1778 (Abbe Mical)] Taking his lead from the work of Kratzenstein [<=1773] Von Kempelen [1770<=1781] deviates from The Turk project and demonstrates a voice synthesis system before the Academy of Saint Petersburg [view modern reconstruction and demonstration] [sub-thread continues at 1781 (The Turk) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

and Explained", one of the first applications of actuarial statistics to the marketing of financial products. [THREAD = THE SHAPING OF THE MODERN WORLD]

1779 Automated Spinning Machinery (III - The Spinning Mule): In an attempt to supply the newly automated weaving industry with ever greater quantities of yarn the British cotton millwright Samuel Crompton [Wikipedia biography] invents the "spinning mule" [Wikipedia specification and image=>1825; YouTube video demonstration], a machine for spinning strong thin cotton suitable for warping as well as wefting woven cotton. The machine uses a two-stroke "draw-and-return" system. On the draw stroke each "roving" [Wikipedia definition and image] is drawn out from its bobbin and twisted, and on the return stroke each twisted thread is collected onto a spindle geared to rotate at precisely the right speed [YouTube demonstration video]. Crompton's machine is built of wood, mounts 48 bobbin-spindle pairs, and is operated by hand. However there now follows half a century of rapid technological development culminating in fully powered iron spinning mules mounting more than a thousand bobbin-spindle pairs. [THREAD = THE INDUSTRIAL REVOLUTION]

1779 Henry Cort [1774<=1784] extends the rolling mill at his Fontley Ironworks [1774<=1784] to help him produce iron barrel-hoops for the Royal Navy. [THREAD = THE INDUSTRIAL REVOLUTION]

1779 The brothers Edward Kendall [no convenient biography] and Jonathan Kendall [no convenient biography] set up an ironworks at Beaufort [map>1833], South Wales. [THREAD = THE INDUSTRIAL REVOLUTION]

1779 [13th May] The Treaty of Teschen: This treaty between Austria and Prussia brings the War of the Bavarian Succession [=1778] to an end with only a small concession of Bavarian territory to the Habsburgs. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** SPAIN DECLARES WAR AGAINST BRITAIN **********

1779 [16th June] Spain formally joins forces with the Continentals to help bring the American War of Independence [=1775 (19th April)] to a speedy conclusion. The Spanish immediately put Gibraltar under siege, spar with the Royal Navy in the Caribbean, and engage in a mutual blockade in the Atlantic. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** HISTORIC WORKERS' PROTEST **********

1779 [17th October] Angered by the falling price of their labour in the face of increasingly mechanised spinning, a band of disaffected millworkers storms Richard Arkwright's [1777<=1786] Birkacre Mill [=1777] and burns it to the ground. [THREAD = THE INDUSTRIAL REVOLUTION]

1780 [20th March] The First Battle of Cape St. Vincent: This naval battle is fought as part of the Spanish Blockade operations of the American War of Independence [=1775 (19th April)] between a British fleet under Sir George Rodney [Wikipedia biography=>1782] and a heavily outnumbered Spanish fleet under Don Juan de Lángara [Wikipedia biography]. The outcome is a with-the-odds British victory. The battle is noteworthy in the present context for the speed advantage gained by those Royal Navy ships fitted with copper-sheathed hulls [Wikipedia technical briefing], a feature which now becomes standard construction practice in Britain, much to the profit of the nation's copperworks. [THREADS = THE SHAPING OF WW1 EUROPE and THE WW1 ARMAMENTS INDUSTRIES]

1780 [20th March] Upon the death of the London-based master-brewer Benjamin Truman [=1737] the day-to-day running of his business is taken over by one James Grant [no
convenient biography], and upon the latter's death in 1788 by one Sampson Hanbury [no
convenient biography=>1805]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1780 [29th March-12th May] The Siege of Charleston: This six-week siege is fought out as part of the Southern Seaboard operations of the American War of Independence [<=1775 (19th April)] between a British army under Henry Clinton [<=1776] and Charles, Earl Cornwallis, [1776<=1781] and the Continental/French garrison at Charleston, South Carolina, under Benjamin Lincoln [Wikipedia biography]. Outnumbered on land and tightly blockaded by sea the defenders eventually surrender. [THREAD = THE SHAPING OF THE MODERN WORLD]

1780 [29th May] The Battle of Waxhaws: This battle is fought as part of the American War of Independence [<=1775 (19th April)], between a British cavalry column under Banastre Tarleton [Wikipedia biography]=>1781] and a column of the 3rd Virginia Continentals under Abraham Buford [Wikipedia biography]. The engagement results in the effective destruction of the Continental unit, but is noteworthy in the present context for the attendant accusations that Tarleton’s men continue to fire even after the Continentals have raised a white flag. [=1781 (17th January)] [THREAD = THE SHAPING OF THE MODERN WORLD]

**WAR ART:** See Sir Joshua Reynolds’ (1782) "Colonel Tarleton".

**RESEARCH ISSUE - "TARLETON'S QUARTER":** For his part, Tarleton later asserted that he had himself been fired on from under the Continentals’ white flag, and suspected Continental treachery. As we shall be seeing in due course, WW1 has no shortage of accusations of foul play on both sides

1780 [1st July] Anthony Bacon I [1777<=1782] expands his South Wales industrial empire by buying into the leases on the Hirwaun Ironworks [1757<=1786] and its associated mining rights. [THREAD = THE INDUSTRIAL REVOLUTION]

1780 [11th July] The Expédition Particulière: This is the name given to the 7000-man French expeditionary army sent under the command of Jean-Baptiste de Vimeur, Comte de Rochambeau [Wikipedia biography]=>1781 (28th September) to assist the Continentals in the American War of Independence [<=1775 (19th April)]. The troops are disembarked at Newport, RI, where they remain as an army of observation for a year before being committed in the decisive Yorktown Campaign [=1781 (28th September)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** HISTORICALLY DECISIVE BATTLE **********

1780 [9th August] The Battle Without a Name: This naval battle takes place in mid-Atlantic between a British supply convoy - 63 merchantmen escorted by one ship of the line and three frigates under John Moutray [Wikipedia biography] - and a Spanish/French battle-fleet under Luis de Córdova [Wikipedia biography]. The outcome is the virtual annihilation of the British convoy. The battle is historically noteworthy because the men and supplies in question were sorely needed by the British armies in Virginia, and may well have contributed to Charles, Earl Cornwallis’ surrender - for want of supplies - after the Siege of Yorktown [<=1781 (28th September)]. The role of French/Spanish/American espionage networks in facilitating the crucial fleet interception will never come to light. [THREAD = THE SHAPING OF THE MODERN WORLD]

1780 [7th October] Battle of King’s Mountain: This battle is fought as part of the American War of Independence [<=1775 (19th April)], between a British militia column under Patrick Ferguson [1772<=1776] dies this day] and a Continental militia column under James Johnston [Wikipedia biography]. The outcome is a decisive Continental victory. [THREAD = THE SHAPING OF THE MODERN WORLD]
ASIDE: The King's Mountain battlefield was made a U.S. National Military Park in 1931 and is today a popular open-air heritage museum [check out the website].

1780 [29th November] Upon the death of Archduchess Maria-Theresa of Austria [<=1740] her titles pass to her son as Archduke Joseph II of Austria [1778<=1781]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1780 [20th December] The Fourth Anglo-Dutch War: This four year war is fought as an adjunct to the broader American War of Independence [<=1775 (19th April)] between Britain and the Dutch Republic, with a view to resolving long-standing trade rivalries. The outcome is a reasonably clear British victory. The war is noteworthy in the present context for exposing the practical difficulties in enforcing anything less than a total and unconditional naval blockade. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** SAMUEL JOHNSON SAYS WHAT NEEDS TO BE SAID **********

1781 Automation, Control, and Artificial Intelligence [XXII - The Turk (Second Demonstration)]: [Continued from 1779 (Von Kempelen)] The Austrian Court commands a repeat exhibition performance of von Kempelen's [1770<=1783] chess-playing automaton (which has been lying idle for some years). Once again the Turk steals the show [sub-thread continues at 1783 (The Turk) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

1781 Belief Systems [XVII - Superstition, Witchcraft, and Magic (Samuel Johnson on)]: [Continued from 1776 (Séraphin)] The British essayist-scholar Samuel Johnson [Wikipedia biography] summarises the appeal of magic as follows: "all wonder is the effect of novelty on ignorance" (Lives of the Poets, 1781) [sub-thread continues at 1783 (Funke and Halle) ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1781 The Fourth Anglo-Dutch War: This four year war is fought as an adjunct to the broader American War of Independence [<=1775 (19th April)] between Britain and the Dutch Republic, with a view to resolving long-standing trade rivalries. The outcome is a reasonably clear British victory. The war is noteworthy in the present context for exposing the practical difficulties in enforcing anything less than a total and unconditional naval blockade. [THREAD = THE SHAPING OF THE MODERN WORLD]

1781 A second blast furnace is added at the Dowlais Ironworks [1767<=1782], raising output to 1800 tons a year. [THREAD = THE INDUSTRIAL REVOLUTION]

1781 Abraham Darby III [<=1775] opens his new iron bridge at Coalbrookdale [<=1775] to traffic. It is the first iron bridge in history. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: Darby's bridge will remain open to traffic until 1934 and is nowadays a UNESCO World Heritage Site [check out the website].

********** "A DEVIL OF A WHIPPING" **********

1781 [17th January] The Battle of Cowpens: This battle is fought as part of the American War of Independence [<=1775] between a detached brigade of Nathanael Greene's [1776<=15th March] Southern Command of the Continental Army under Daniel Morgan [<=1777 (11th September)] and a British brigade under Banastre Tarleton [<=1780]. The outcome is a crushing defeat for the British thanks to the maximisation of firepower on Morgan's part by shrewd tactical placement of his troops. Tarleton's command includes four companies of the 7th (Royal Fusiliers) Regiment of Foot [1751<=1782]. [THREAD = WW1 SMALL ARMS]

1ASIDE: These events are covered in detail in the book "A Devil of a Whipping" (Babits, 2000).
KEY INFANTRY TACTIC - THE SKIRMISH LINE: Morgan's masterstroke was to deploy his riflemen in a loose array, free to stop and take advantage of cover when they individually deemed it advantageous. This gave their fire greater accuracy, and covered them during the extra few seconds it took to reload a rifle compared to a musket. It also allowed momentary targets to be engaged when they presented themselves, there being no audible command to fire as with muskets fired by the volley. [See also 1799 ASIDE]

1781 [1st March-4th March 1789] The Congress of the Confederation: [See firstly 1775 (10th May)] This de facto U.S. parliament follows on from the Second Continental Congress [<=1775 (10th May)] and oversees not just the final months of fighting in the American War of Independence [<=1775 (19th April)] but also the early years of independence. [THREAD = THE SHAPING OF THE MODERN WORLD]

1781 [9th March] A letter bearing this date indicates that Richard Kempenfelt [Wikipedia biography=>1782], a highly experienced Royal Navy admiral, has been experimenting with new systems of flag signalling at sea. He is particularly concerned, it seems, with reducing the number of flags used without compromising the richness of the messages sent with them. [THREAD = WW1 SIGNALLING AND COMMUNICATIONS]

1781 [15th March] The Battle of Guilford Courthouse: This battle is fought as part of the American War of Independence [<=1775 (19th April)] between a British army under Charles, Earl Cornwallis, [1780<=28th September] and Nathanael Greene's [<=17th January] Southern Command of the Continental Army. The outcome is a British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1781 [9th March] The Austro-Russian Alliance: In an attempt to drive a wedge between Prussia and Russia, the Holy Roman Emperor, Archduke Joseph II of Austria [1780<=1790], concludes a treaty of cooperation with the pro-Austrian faction at the Russian court, that is to say, Grigory Potemkin [Wikipedia biography]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1781 [27th August] The Battle of Pollilur: This battle is fought as part of the Second Anglo-Mysore War between an East India Company brigade under Sir Eyre Coote [<=1760] and the army of the Sultanate of Mysore under Tipu Sultan [Wikipedia biography]. It is noteworthy in the present context for the Sultanate's use of tactical rocketry [compare 1804 (Congreve)]. [THREAD = WW1 ARTILLERY]

********** HISTORICALLY DECISIVE BATTLE **********

1781 [5th September] The Battle of the Chesapeake: This naval battle is fought as part of the Southern Seaboard operations of the American War of Independence [<=1775 (19th April)] between a French fleet under François, Comte de Grasse [Wikipedia biography] and a British fleet under Sir Thomas Graves [Wikipedia biography] and Sir Samuel Hood [Wikipedia biography=>1782]. Crucially De Grasse has his fleet at full strength because Spain has agreed temporarily to cover French possessions in the Caribbean, thus freeing up the French squadrons there. The British are trying to beat their way into Chesapeake Bay to break the French navy's blockade of their land campaign in Virginia. Tactically speaking the outcome is a marginal French victory, but strategically it fails to break the French blockade and that, in turn, makes a catastrophic British surrender at Yorktown merely a matter of time [=>next entry]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** HISTORICALLY DECISIVE BATTLE **********

1781 [28th September-19th October] The Siege of Yorktown: This three-week siege is fought out as part of the Southern Seaboard operations of the American War of Independence [<=1775 (19th April)] between a Continental/French army under (by land) George
Washington [1778<=1789] and Jean-Baptiste de Vimeur, Comte de Rochambeau [<=1780], and (by sea) François, Comte de Grasse [5th September<=1782], and a British/Ansbach-Bayreuth/Hessian bridgehead in and around Yorktown, VA, under Charles, Earl Cornwallis, [15th March<=1786]. The outcome is a historically decisive Continental/French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1781 [12th December] **The Battle of Ushant:** This naval battle is fought as part of the Trans-Atlantic Blockade operations of the American War of Independence [<=1775 (19th April)] between a 20plus-ship French supply convoy escorted by 19 ships of the line under Luc, Comte de Guichen [Wikipedia biography] and a significantly smaller British fleet under Richard Kempenfelt [9th March<=1782]. The outcome is a surgically precise French defeat thanks to the escorts being caught downwind of the convoy they are supposed to be protecting. Fifteen of the French merchantmen are captured and the rest put to flight. Poor weather then prevents De Guichen doing anything to retrieve the situation. It is quite possible that Kempenfelt's experimental signalling system [=>1782] facilitated the complex manoeuvring of his fleet on the day in question. [THREAD = WW1 SIGNALLING AND COMMUNICATIONS]

1782 Primary material from this year suggest John Miers I [<=1770] is operating the Aberdulais Ironworks [<=1768] as a tinplating works, complete with its own attached rolling and tinning mills. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** The Aberdulais Ironworks is nowadays a National Trust heritage museum [see museum website].

1782 John Guest [1767<=1786] buys an interest in the Dowlais Ironworks [1781<=1786]. [THREAD = THE INDUSTRIAL REVOLUTION]

1782 Ireland gets its own parliament and constitution. [THREAD = THE SHAPING OF THE MODERN WORLD]

1782 [25th-26th January] **The Battle of St. Kitts:** This naval battle is fought as part of the Caribbean operations of the American War of Independence [<=1775 (19th April)] between a French fleet under François, Comte de Grasse [1781<=9th April] and a British fleet under Sir Samuel Hood [1781<=1793 (18th September)]. In terms of damage done the outcome is a marginal British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1782 [9th-12th April] **The Battle of the Saintes:** This naval battle is fought as part of the Caribbean operations of the American War of Independence [<=1775 (19th April)] between a French invasion fleet under François, Comte de Grasse [<=25th January] and a British fleet under Sir George Rodney [<=1780]. The outcome is a British victory and results in French plans to invade Jamaica being abandoned. The battle is noteworthy in the present context as a case study in the benefits to be gained by "breaking" an enemy's line of battle. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 SIGNALLING AND COMMUNICATIONS]

**ASIDE:** Corbett (op. cit.) suspects that Rodney's battle-winning manoeuvre led to the inclusion in Howe's 1782 Signal Book [=>next entry] of Signal #235. It reads ...

"When fetching up with the enemy to leeward, and on the contrary tack, to break through their line and endeavour to cut off part of their van or rear" (p117).

**ASIDE - LINE OF BATTLE IN WW1:** Many WW1 naval battles, especially the Battle of Jutland [=>1916 (31st May)], begin in formal line(s) of battle formation.
1782 [After 9th April] Taking note of the signalling systems suggested five years previously by Sir Charles Henry Knowles [<1777] and lately under experiment by Richard Kempenfelt [<1781], Richard Howe [1st Earl Howe]¹⁷⁸⁸ [1777<=>1790] upgrades the Royal Navy's "Fighting Instructions" [<1715]. The new version consists of 26 main instructions and an accompanying numeric Signal Book [<1790]. Here is the Instruction controlling the giving of assistance to a disabled ship [note the relationship between an Instruction and a Signal, the first a matter of overriding understanding and generally expected behaviour, and the second a matter of specific right-now command] ...

"XV. When any ship in the fleet is so much disabled as to be in the utmost danger and hazard of being taken by the enemy, or destroyed, and makes the signal expressive of such extremity; the Captains of the nearest ships [...] are strictly enjoined to give all possible aid and protection to such disabled ship, as they are best able" (Corbett, op. cit., p123).

And here is a typical Signal [#232], a two-flag hoist¹ capable of instantly directing the manoeuvre of perhaps many thousands of men on the receiving end ...

"When inferior in number to the enemy, and to prevent being doubled upon in the van or rear, for the van squadron to engage the headmost ships of the enemy's line, the rear their sternmost, and the centre that of the enemy, whose surplus ships will then be left out of action in the vacant spaces between our squadrons" (op.cit., p117).

[THREAD = THE WW1 SURFACE NAVIES]

¹ASIDE - HEXADECIMAL ENCODING IN SIGNAL FLAGS: Note that two flags were used to send a three-digit numeral. This was made possible because each flag was one of a repertoire of sixteen possibilities, that is to say, there was a flag denoting the number 10, another for 11, another for 12, etc. Thus a hoist of Flags #1 and #1 enciphers Message #1, whilst Flags #16 and #16 encipher Message #256. A simple matrix - see National Maritime Museum image - links the message to the necessary hoist on the sending ship and back again on all the receiving ships. Exactly the same compressive "hexadecimal" [= base 16] encoding was developed for electronic computers in the early 1960s [see Companion Resource (Section 1.6)].

********** THE 1782 INFANTRY REORGANISATION **********

1782 [21st August] The Commander-in-Chief of the British Army, Henry Conway [Wikipedia biography], introduces a major renaming exercise for the British Army's infantry regiments. The guiding principle is that all regiments already well known by royal sponsorship may remain as such, but all others - those known by their present colonel, whose names therefore change every few years - will henceforth be known only by their line precedence. Here are the individual changes ...

FOOT GUARDS REGIMENTS

The Scottish Regiment of Foot Guards [<=1743] remains as such [=>1881].
The 1st Regiment of Foot Guards [<=1751] remains as such [=>1815].
The 2nd (Coldstream) Regiment of Foot Guards [<=1743] remains as such [=>1881].
The [Composite] Guards Brigade [<=1776] will be disbanded in 1783.

LINE INFANTRY REGIMENTS

The 1st (Royal) Regiment of Foot [1751<=1812] remains as such.
The 2nd (Queen's Royal) Regiment of Foot [1751<=1881] remains as such.
The Holland Regiment [<=1688] becomes the 3rd Regiment of Foot [=>1881].
The 2nd Tangier Regiment [<=1702] becomes the 4th (The King's Own) Regiment of Foot [=>1881].
Lloyd's Regiment of Foot [<=1689] becomes the 5th Regiment of Foot [=>1881].
Babington's Regiment of Foot [<=1689] becomes the 6th Regiment of Foot [=>1881].
The 7th (Royal Fusiliers) Regiment of Foot [1781<=1811] remains as such.
The Princess of Denmark's Regiment of Foot [<=1685] becomes the 8th (Queen's) Regiment of Foot [=>1881].
Henry Cornewall's Regiment of Foot [<=1685] becomes the 9th Regiment of Foot [=>1881].
The Earl of Bath’s Regiment of Foot [<=1685] becomes the 10th Regiment of Foot [=>1881].
The 11th Regiment of Foot [1751<=1881] remains as such.
The 12th Regiment of Foot [1751<=1881] remains as such.
The 13th Regiment of Foot [1751<=1881] remains as such.
The 14th Regiment of Foot [1751<=1881] remains as such.
The 15th Regiment of Foot [1751<=1881] remains as such.
The 16th Regiment of Foot [<=1751] becomes the 16th (Buckinghamshire) Regiment of Foot [=>1881].
The 17th Regiment of Foot [1751<=1881] remains as such.
The 18th (Royal Irish) Regiment of Foot [1751<=1881] remains as such.
The 19th Regiment of Foot [1751<=1881] remains as such.
The 20th Regiment of Foot [1751<=1881] remains as such.
The 21st (Royal North British Fusilier) Regiment of Foot [=>1887].
The Duke of Norfolk’s Regiment of Foot [<=1689] becomes the 22nd Regiment of Foot [=>1881].
The Welch Regiment of Fusiliers [<=1702] becomes the 23rd (Royal Welch Fusiliers) Regiment of Foot [=>1881].
Sir Edward Dering's Regiment of Foot [<=1684] becomes the 24th Regiment of Foot [=>1881].
The 25th Regiment of Foot [<=1759] becomes the 25th (Sussex) Regiment of Foot [=>1799]. [This despite the fact that the 25th had always been connected with Edinburgh! The anomaly will be corrected in 1881 when the 25th becomes the "King's Own Borderers"].
The Earl of Angus's Regiment of Foot [<=1689] becomes the 26th Regiment of Foot [=>1881].
Zachariah Tiffin's Regiment of Foot [<=1689] becomes the 27th Regiment of Foot [=>1881].
Sir John Gibson's Regiment of Foot [<=1694] becomes the 28th Regiment of Foot [=>1881].
Farrington's Regiment of Foot [<=1702] becomes the 29th Regiment of Foot [1770<=1881].
Viscount Castleton's Regiment of Foot [<=1689] becomes the 30th Regiment of Foot [=>1881].
George Villiers' Regiment of Marines [<=1702] becomes the 31st Regiment of Foot [=>1881].
Edward Fox's Regiment of Marines [<=1702] becomes the 32nd Regiment of Foot [=>1881].
The Earl of Huntingdon's Regiment [<=1702] becomes the 33rd Regiment of Foot [=>1881].
Lord Lucas' Regiment of Foot [<=1702] becomes the 34th Regiment of Foot [=>1881].
The Earl of Donegall's Regiment of Foot [<=1701] becomes the 35th Regiment of Foot [=>1881].
Viscount Charlemont's Regiment of Foot [<=1701] becomes the 36th Regiment of Foot [=>1881].
Meredyth's Regiment of Foot [<=1702] becomes the 37th Regiment of Foot [=>1881].
Lillington's Regiment of Foot [<=1702] becomes the 38th Regiment of Foot [=>1881].
Coote's Regiment of Foot [<=1702] becomes the 39th Regiment of Foot [=>1881].
Phillip's Regiment of Foot [<=1717] becomes the 40th Regiment of Foot [=>1881].
Edmund Fielding's Regiment of Foot [<=1719] becomes the 41st Regiment of Foot [=>1881].
Crawford's Regiment of Foot [<=1740] becomes the 42nd (Royal Highland) Regiment of Foot [=>1881].
Fowke's Regiment of Foot [<=1741] becomes the 43rd Regiment of Foot [=>1881].
Long's Regiment [<=1741] becomes the 44th Regiment of Foot [=>1881].
Houghton's Regiment [<=1741] becomes the 45th Regiment of Foot [=>1881].
John Price's Regiment [<=1741] becomes the 46th Regiment of Foot [=>1881].
Sir John Mordaunt's Regiment [<=1741] becomes the 47th Regiment of Foot [=>1881].
Cholmondeley's Regiment [<=1741] becomes the 48th Regiment of Foot [=>1881].
Trelawney's Regiment [<=1744] becomes the 49th Regiment of Foot [=>1881].

The 50th through 60th Regiments have only recently been formed [<=1755] and are already in the required format. [THREAD = THE WW1 ARMIES]

1782 [27th September] The Worcestershire businessman Francis Homfray [Wikipedia biography] and his sons Jeremiah Homfray [Wikipedia biography] and Samuel Homfray [Wikipedia biography] take over the cannon manufacturing side of the business at Anthony Bacon I's Cyfarthfa Ironworks [1777<=1783], with Bacon continuing to supply the necessary iron. [THREAD = THE INDUSTRIAL REVOLUTION]

1783 Automation, Control, and Artificial Intelligence [XXIII - The Turk (First Grand Tour)]; [Continued from 1781 (The Turk)] Von Kempelen [1781<=1805] takes The Turk on a grand tour of European venues, starting in Paris, where the machine takes on - and beats - ever better opponents (including Benjamin Franklin [<=1777]) and receives more
and more public interest. A sceptical Philip Thicknesse [Wikipedia biography] popularises the hoax theory that the contraption is worked from within by a dwarf or small child [more on which at 1836]. The exhibitions will continue in seasons until von Kempelen's death in 1804, and opinions are divided as to whether or not he ever revealed his secret (the ever-inquisitive Franklin would most certainly have pressed him on the subject) [sub-thread continues at 1787 (Mead) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

********** "There is no magic other than the natural"! **********

1783 Belief Systems [XVIII - Superstition, Witchcraft, and Magic (Funke and Halle)]; [Continued from 1781 (Samuel Johnson)] The German scientist Christlieb Funke [Wikipedia biography] publishes a compendium of popular performance magic tricks under the title "Natürliche Magic", taking the line throughout that "magic had never been anything but experimental physics" (Beck, op. cit. [=1589]). Around the same time his compatriot Johann S. Halle [Wikipedia biography] does much the same in "Fortgesetzte Magie, oder die Zauberkräfte der Natur" [full text online], and in the early 1800s Johann H. M. von Poppe [Wikipedia biography] lifts the lid on automata to examine the (entirely earthly) mechanisms within2 [sub-thread continues at 1784 (Pinetti) ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1ASIDE: Halle, as quoted in Beck.

2ASIDE: Edgar Allan Poe will do the same specifically for chess-playing automata half a century later [=1836 (April)].

RESEARCH ISSUE: We take this opportunity to note that there now seem to be two sorts of people. On the one hand we have a sceptical minority like Scot [=1584], della Porta [=1589], Funke and Halle [above], and the like, who see magic as science removed from the laboratory, so that the magician's command of this or that natural phenomenon can pull the wool over the eyes of the uninitiated. And on the other hand we have those whose untrained minds fall for the illusions every time. Magicians, in short, "show a sometimes astonishing ability to exploit the latest in science for the purposes of magic" (Beck, op. cit.). Astonishingly, in this age of Zombies, Vampire Slayers, and Halloween, things are, if anything, getting worse by the day.

1783 James Harford [=1768] and the Reynolds and Partridge Partnership [=1763] join forces to become the Harford and Partridge Partnership [=1792]. [THREAD = THE INDUSTRIAL REVOLUTION]

1783 Joshua Glover [no convenient biography] and Samuel Glover [no convenient biography] develop an ironworks at Abercarn [map, etc.], South Wales, purchasing pig iron feedstock from the Cyfarthfa Ironworks [1782<=1784] and turning it into wire (Burland, Frowen, and Milson, 1997 online). [THREAD = THE INDUSTRIAL REVOLUTION]

1783 The British soldier (Sir) William Congreve (the Elder) [Wikipedia biography] is appointed Comptroller of the Woolwich Royal Laboratory [Wikipedia article] and standardises the constituents of British-made gunpowder at 75% saltpetre, 15% charcoal, and 10% sulphur. [THREAD = WW1 ARTILLERY]

1783 [4th June] The Montgolfier Brothers [Wikipedia biography] demonstrate a hot-air balloon capable of rising a mile or so and then descending safely. Three months later they repeat the demonstration with a payload of a sheep, a duck, and a rooster. Further tethered lift-offs follow, culminating in November with a 25-minute free flight with three people on board. These events are noteworthy in the present context for promising an entire new discipline of aerial military observation [=1794 (Battle of Fleurus)]. [THREAD = WW1 AVIATION]
1783 [27th August] The French balloonists the Robert Brothers [Wikipedia biography] demonstrate that hydrogen gas is as good as hot air in giving an unmanned balloon the necessary lift. A manned flight will follow 1st December. [THREAD = WW1 AVIATION]

1783 [3rd September] The Treaty of Paris [1783]: This treaty between Britain and the Continental Americans recognises the United States of America as an independent nation and thereby brings the American War of Independence [<=1775 (19th April)] to an end. Subordinate peace treaties are also concluded with Spain and France. [THREAD = THE SHAPING OF THE MODERN WORLD]


1784 Belief Systems [XIX - Superstition, Witchcraft, and Magic (Pinetti and Decremps)]: [Continued from 1783 (Funke and Halle)] The Italian academic-turned-showman Giovanni G. Pinetti [Wikipedia biography] publishes "Amusements Physiques" [= "Physical Amusements"], in which he explains to would-be fellow practitioners how to perform a repertoire of magic tricks. Around the same time the French magician Henri Decremps [Wikipedia biography] publishes "La Magie Blanche Devoilée" [= "The Secrets of White Magic"], in which he clearly separates the skills of conjuring from the "amusing physics" of demonstrations of natural phenomena [sub-thread continues at 8th September ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1784 The Puddling Furnace: Henry Cort [1779<=1789] receives a patent in respect of the "puddling furnace" [=1789] he has been working on at his Fontley Ironworks [=1779]. [THREAD = THE INDUSTRIAL REVOLUTION]

KEY IRONWORKING CONCEPT - "PUDDLING": Technically speaking, a puddling furnace is an example of a reverberatory oven, that is to say, one in which the burning fuel is kept separate from the feedstock, just as in a pizza oven, where the hot gases pass across the roof of the oven on their way to the flue. The hot oven roof then radiates heat downwards onto the material to be heated. This layout has the advantage (a) that chemical impurities and ash from the fuel are not allowed to contaminate the melt, and (b) that the carbon content of the melt can be controlled by setting the amount of unburned oxygen in the furnace gases [a "reducing" burn will be kept short of oxygen so that the furnace gases will contain carbon monoxide rather than carbon dioxide and duly take oxygen out of the melt but leave its carbon levels unaffected, whilst an "oxidising" burn will be over-ventilated so that hot oxygen passes over the melt to burn off its carbon content].

********** THE STEAM AUTOMOBILE IS CONCEIVED **********

1784 [See firstly 1769 (Nicolas Cugnot)] The British inventor William Murdoch [Wikipedia biography] constructs a scale-model "steam carriage". There is no reliable report of a full-scale vehicle being produced. [THREAD = THE INDUSTRIAL REVOLUTION]

1784 The Danes complete the Eiderkanal, a ship canal across the neck of the Jutland Peninsula between the North Sea and the Baltic Sea. [THREAD = THE WW1 SURFACE NAVIES]

ASIDE - THE EIDERKANAL IN WW1: Suitably widened and deepened between 1887 and 1895 the Eiderkanal will be renamed the Kiel Canal [=1895 (20th June)] and will play a large part in German naval planning in the run-up to WW1.

********** IMPORTANT WW1 WEAPON **********

===== SHRAPNEL =====
1784 A young British lieutenant named Henry Shrapnel [Wikipedia biography] devises "spherical case" ammunition, a hollowed-out cannon ball - hence "shell" - containing a gunpowder charge, a time-fuse capable of delaying its explosion until it has been in flight an appropriate length of time, and a payload of tightly packed musket-balls. [THREAD = WW1 ARTILLERY]

1784 Upon his retirement Anthony Bacon I [1782<=1786] sells his remaining interest in the Cyfarthfa Ironworks [1783<=1789] to Richard Crawshay [1777<=1789]. At much the same time Jeremiah Homfray [1782<=1789], Samuel Homfray [1782<=1792 (15th November)] and Thomas Homfray [no convenient biography] sell the cannon factory at Cyfarthfa to David Tanner [1775<=next entry] and construct a new works at Penydarren [map, etc.] at Merthyr Tydfil. One of their partners, Richard Forman I [Grace's Guide biography]=>1794], is closely associated with the Board of Ordnance in London. [THREAD = THE INDUSTRIAL REVOLUTION]

1ASIDE: The remains of the Penydarren Ironworks are nowadays linked by a heritage trail [see tourist website].


1784 [8th September] Belief Systems [XX - Superstition, Witchcraft, and Magic (Séraphin again)]: Continued from 1784) So popular has it become that Séraphin [=1776] is able to relocate his shadow theatre to the Palais-Royale in Paris [sub-thread continues at 1789 (Philidor) ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1785 Around this time Richard Parsons [no convenient biography] starts to develop a blast furnace and forge at Cwm-y-Felin [map=1792], on the banks of the River Clydach, near Neath Abbey. [THREAD = THE INDUSTRIAL REVOLUTION]

DISAMBIGUATION - CLYDACH: The River Clydach [pronounce to rhyme with "Ruddock"] referred to above is NOT the same River Clydach which flows down the Clydach Gorge from Blaenau [=1765], past the Clydach Vale Ironworks [1704<=1792], to Abergavenny.


1786 Thomas Guest [Wikipedia biography]=>1807] succeeds his father John Guest [=1782] as manager of the Dowlais Ironworks [1782<=1793]. Around the same time the Hirwaun Ironworks [=1780] is taken over by Samuel Glover [no convenient biography], and the aforementioned Richard Forman I [=1784] now buys into the Penydarren Ironworks [1784<=1789], bringing his knowledge of (and contacts within?) the armaments procurement process with him. [THREAD = THE INDUSTRIAL REVOLUTION]

1786 The workers at the Melingriffith Tinplating Works [1768<=1795] establish a "Benefits Club", by which individual workers operate a local employment security fund. [THREAD = THE INDUSTRIAL REVOLUTION]
1786 One Henry Overton Wills I [no convenient biography=>1826] sets up shop as tobacconist in Castle Street, Bristol. [THREAD = THE INDUSTRIAL REVOLUTION]


1786 [21st January] Upon the death of Anthony Bacon I [<=1782], and with his heir Thomas Bacon [no convenient biography] still only two years old, the Court of Chancery awards control of the Plymouth Ironworks [1777<=1799] temporarily to Richard Hill [National Library of Wales biography]. [THREAD = THE INDUSTRIAL REVOLUTION]

1786 [23rd February] Charles, Earl Cornwallis [1781<=1792] is appointed Governor General of India and Commander-in-Chief of the British forces there, and sets about a period of administrative, commercial, and legal reform. [THREAD = THE SHAPING OF THE MODERN WORLD]

1786 [17th August] Upon the death of Frederick II of Prussia [<=1778], his nephew ascends the throne as Frederick William II of Prussia [Wikipedia biography=>1790]. History will judge him not a military man, and under his rule the Prussian Army certainly seems to lose its edge, culminating in a catastrophic drubbing at the Battle of Jena-Auerstädt [=1806 (14th October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1787 At the instigation of Sir William Congreve (the Elder) [<=1778], the British government buys the "oyle mill" complex at Waltham Abbey [=1665], re-establishes it as the Royal Gunpowder Mills, and sets about turning it into a model of efficiency and product quality. [THREAD = WW1 ARTILLERY]

********** "PART OF GOD'S EDUCATION"**********

1787 Automation, Control, and Artificial Intelligence [XXIV - Industrial Automation (The Lift Tenter)]: [Continued from 1783 (The Turk)]: The British millwright Thomas Mead [no convenient biography] patents a "centrifugal governor", a device for automatically "tentering" his millstones, that is to say, adjusting the down-pressure of the upper millstone onto the lower [sub-thread continues at 1791 (De Prony) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND CONTROL] [THREAD = THE INDUSTRIAL REVOLUTION]

1ASIDE - THE NEGATIVE FEEDBACK CONTROL LOOP: This phrase from Swade (2000, p79). The centrifugal governor is one of the three "classical inventions" of the science of control (the others being the tiller and Lee's fantail). Specifically it is a perfect example of a "negative feedback" control apparatus, that is to say, one which automatically counteracts momentary deviations in the behaviour of a larger system away from a desired value by "feeding back" measurements of the deviation as adjustments to the primary power source, speeding it up if it is slowing down or slowing it down if it is racing.

2ASIDE - TENTERING: Flour mills typically mount two flat mill-stones one over the other [see explanatory graphic], and turn only the upper stone - the "runner" - over the lower - "the bedstone". Unfortunately the faster the runner turns the more likely it is to bounce around against the bedstone, with the quality of the grain suffering as a result. Again, adjustments could be made manually - a process the millers called tentering - but on a gusty day this would be a full-time job in itself. Mead's "centrifugal governor" was a double conical pendulum, that is to say, a pair of fly balls suspended on hinged arms from a spinning base plate (a contrivance known about for some time previously - but in miniature - to clockmakers). The base plate was attached to the millstone drive shaft (so that its speed varied with the millstone speed), and the faster it turned, the further out the fly balls would fly under the influence of centrifugal force. It remained only to connect the outward swing of the fly balls to some means of slowing the main drive and you had a means of making continuous
and automatic adjustments to your speed. This adjustment was achieved either (a) by physically pressing against the running stone, or (b) by variably “reefing” or “feathering” the slats which made up the sails (or on occasions, indeed, by a combination of the two).

1787 [and probably earlier] **One Walter Watkins** [no convenient biography=>1789] is operating a forge at **Glangrwyney**[1](http://valeofgrwyney.org/), near Abergavenny. [THREAD = THE INDUSTRIAL REVOLUTION]

  1ASIDE: Pronounce as “glan-groiny”. The Welsh morpheme Glen- signifies “beside/on the banks of”, and so the name Glangrwyney indicates “beside the [River] Grwyney”. The even more common Welsh morpheme Llan- signifies “parish at”, and so the name Llangrwyney indicates “the church community on the [River] Grwyney”. In the 18th century Glangrwyney would thus have been a few buildings within the larger rural community of Llangrywney. The modern Vale of Grwyney Community Council has made a map of the area available at http://valeofgrwyney.org/, if interested.

1787 [See firstly 1774 (12th February)] **Grand Duke Leopold II of Tuscany** [1774<=>1790] sponsors the rebuilding of the mediaeval Bonifacio Hospital, Florence, as a hospital for the insane, and appoints **Vincenzo Chiarugi** [Wikipedia biography] as Director. [THREAD = WW1 PSYCHIATRY]

1787 Around this time the Prussian Army starts to use the term "fusilier" to denote specialist light infantry [Continues =>1808 ...]. [THREAD = THE WW1 ARMIES]

1787 [24th May] **The Assembly of Notables:** In an attempt to stave off national economic collapse and restore his own popularity **Louis XVI of France** [1774<=>1789] takes advice from his Finance Minister **Charles ["Monsieur Déficit"], Viscomte de Calonne** [Wikipedia biography] and summons the **Assemblée des Notables**, a rarely convened body of French aristocracy and businessmen. They are asked for new ideas and a consensus way forward. Unfortunately the subtext is that by relieving taxation on the poor the burden will shift instead to the aristocracy and the businessmen. Unsurprisingly, little progress is made and Calonne is replaced by the banker-politician **Jacques Necker** [Wikipedia biography=>1789]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1787 [24th May] Upon the death of **Charles Morgan I** [<=1771] the **Tredegar Estates** [1771<=1792 (25th June)] pass to his younger brother **John Morgan [of Dderw]** [Wikipedia biography=>1792 (25th June)], [THREAD = THE INDUSTRIAL REVOLUTION]


1787 [3rd December] The American inventor **James Rumsey** [Wikipedia biography] demonstrates a steam-powered water-jet boat on the Potomac River, but his propulsion system fails to catch on either militarily or commercially. [THREAD = THE INDUSTRIAL REVOLUTION]

1788 An up-and-coming Prussian artillery officer named **Gerhard von Scharnhorst** [Wikipedia biography=>1808] helps produce the Prussian Army's Handbook on "**Kriegswissenschaft**", or the science of war. [THREAD = THE WW1 ARMIES]

1788 [7th July] **The Russo-Swedish War, 1788-1790:** This war is fought up and down the Baltic between the navies of **Gustav III of Sweden** [Wikipedia biography] and **Catherine II (the Great) of Russia** [1768<=1796]. Neither side has resources to spare to pursue the disagreement with any vigour, and on 14th August 1790 the **Treaty of Väräliä** restores peace. [THREAD = THE SHAPING OF THE MODERN WORLD]
1788 Following the 1782 infantry reorganisation [q.v.], the British Army now repeats the exercise for its cavalry regiments. Again the guiding principle is that regiments with particular royal sponsorship may remain as such, but all others will henceforth be known only by their line precedence. Here are the individual changes ...

CAVALRY REGIMENTS (ELITE AND CEREMONIAL)
The 1st (King's Own) Troop of Horse Guards [=1751] becomes the 1st Regiment of Life Guards [=1881].
The 2nd (Queen's) Troop of Horse Guards [=1751] becomes the 2nd Regiment of Life Guards [=1877].

CAVALRY REGIMENTS (LINE, HEAVY)
The Queen's Regiment of Horse [=1685] becomes the 1st (King's) Regiment of Dragoon Guards [=1881].
The Earl of Peterborough's Regiment of Horse [=1682] becomes the 2nd (Queen's Bays) Regiment of Dragoon Guards [=1881].
The Earl of Plymouth's Regiment of Horse [=1685] becomes the 3rd (Prince of Wales's) Regiment of Dragoon Guards [=1881].
The 4th (Royal Irish) Regiment of Dragoon Guards [1751<=1881] remains as such.

ASIDE - THE 4TH (ROYAL IRISH) REGIMENT IN WW1: The 4th (Royal Irish) Regiment of Dragoon Guards will have the dubious honour of firing the British Army's first shots in anger in the run-up to the Battle of Mons [=1914 (25th August)].

The 5th Regiment of Dragoon Guards [1751<=1804] remains as such.
Lord Lumley's Regiment of Horse [=1685] becomes the 6th (Carabiniers) Regiment of Dragoon Guards [=1881].
Lord Cavendish's Regiment of Horse [=1685] becomes the 7th (The Princess Royal's) Regiment of Dragoon Guards [=1881].
The Earl of Plymouth's Regiment of Horse [=1685] becomes the 3rd Regiment of Dragoon Guards [=1881].
Berkeley's Dragoons [=1685] become the 4th Regiment of Dragoons [=1881].

CAVALRY REGIMENTS (LINE, LIGHT)
The King's Own Royal Regiment of Dragoons [=1683] becomes the 1st Royal Dragoons [=1881].
The Royal Regiment of Scots Dragoons [=1681] becomes the 2nd (Royal Scots Greys) Dragoons [=1881].
The King's Own Regiment of Hussars [=1685] becomes the 3rd (King's Own) Hussars [=1881].
The 4th (Queen's Own) Hussars remain as such [=1812 (Battle of Salamanca)].
James Wynne's Regiment of Dragoons [=1689] becomes the 5th (Royal Irish) Lancers [=1881].
Sir Albert Cunningham's Regiment of Dragoons [=1689] becomes the 6th (Inniskilling) Dragoons [=1881].
The Queen's Own Regiment of Dragoons [=1690] becomes the 7th (Queen's Own) Hussars [=1881].
Henry Conyngham's Regiment of Dragoons [=1693] becomes the 8th (King's Royal Irish) Hussars [=1881].
Owen Wynne's Regiment of Dragoons [=1715] becomes the 9th (Queen's Royal) Lancers [=1881].
Humphrey Gore's Regiment of Dragoons [=1715] becomes the 10th (Prince of Wales's Own Royal) Hussars [=1881].
Philip Honeywood's Regiment of Dragoons [=1715] becomes the 11th (Prince Albert's Own) Hussars [=1881].
Phineas Bowles's Regiment of Dragoons [=1715] becomes the 12th (Prince of Wales's) Royal Lancers [=1881].
Richard Munden's Regiment of Dragoons [=1715] becomes the 13th Hussars [=1881].
James Dormer's Regiment of Dragoons [=1715] becomes the 14th (King's) Hussars [=1881].

[THREAD = THE WW1 ARMIES]
1788 Inspired by Thomas Mead's [<=1787 (Thomas Mead)] invention the year before, the Boulton and Watt Partnership [<=1775] patents a "centrifugal governor" [a.k.a. "Watt's Regulator"] for the automatic adjustment - or "governing" - of steam engines [see YouTube demonstration]. [THREAD = THE INDUSTRIAL REVOLUTION]

1788 The British businessman John Vivian [Wikipedia biography] develops a copperworks at Penclawdd [map, etc.=>1792], near Swansea, South Wales. [THREAD = THE INDUSTRIAL REVOLUTION]


1788 [30th November] The British entrepreneurs Thomas Hill [Grace's Guide biography], Benjamin Pratt [no convenient biography], and Thomas Hopkins [no convenient biography] lease the mineral rights to a seven-square-mile tract of Blaenavon Moor [map, etc.=>1790], Gwent, from Henry Nevill, 2nd Earl of Abergavenny [Wikipedia biography], and set about constructing a three-furnace ironworks. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** This is a good point at which to raise an important point of British history, namely that the vast land-grab which was the Norman invasion [<=1066] was in 1788 and at the time of writing [2014] still is shaping British society in general. By and large the old Norman families still owned all that was worth owning in the land, and the indigenous Celto-Romanic, Anglo-Saxon, and Viking peoples did all the work, farming leased land, living in leased cottages, and working leased mineral deposits - while paying their landlords more or less handsomely for that privilege!

1788 [14th December] Upon the death of Charles III of Spain [<=1770] his titles pass to his son as Charles IV of Spain [Wikipedia biography]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 Belief Systems [XXI - Superstition, Witchcraft, and Magic (Philidor)]: [Continued from 1784 (8th September)] The German showman Paul Philidor [Wikipedia biography]=>1797 takes up Schröpfer's [<=1760] idea of the magic-lantern séance. He plays Berlin for a couple of seasons, then relocates to Vienna in 1791 to Vienna, Paris in 1793, and finally London in 1801 [sub-thread continues at 1797 (Robertson) ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1789 Automated Weaving Machinery (II): Edmund Cartwright [1785<=1809] patents an improved power loom and leases workshop space at Doncaster, South Yorkshire. [THREAD = THE INDUSTRIAL REVOLUTION]

********** THE FIRST TEXTBOOK OF CHEMISTRY **********

1789 Antoine Lavoisier [<=1775] publishes "Elementary Treatise in Chemistry" in which he names and describes 55 "simple substances". [THREAD = THE INDUSTRIAL REVOLUTION]

1789 [3rd April] Keen to exploit the market for converting pig iron into iron bar and then selling it on, but unable to expand the existing Glangrwyney Forge [<=1787], the aforementioned Walter Watkins [<=1787] teams up with Jeremiah Homfrey [1784<=1793] and Charles Cracroft [no convenient biography] to take over the Penydarren Ironworks [1786<=1794]. Shortly afterwards they begin developing a coke-fuelled blast-
furnace complex at Pen-y-Cae Farm, Glyn Ebwy [modern Ebbw Vale]. Better known as the Ebbw Vale Ironworks [map, etc.→1793] this works will go on to become Europe's largest steelworks. [THREAD = THE INDUSTRIAL REVOLUTION]

1789 "The Welsh Method": Instructed by Richard Crawshay [1784<=1795], Henry Cort [=1784] commissions an experimental puddling furnace [=1784] and rolling mill at the Cyfarthfa Ironworks [1784<=1793]. The new stands are troubled by technical problems and Cort soon retires into bankruptcy, leaving Crawshay and his Foundry Manager George Watkin [no convenient biography] to continue the necessary modifications for at least two further years. They do such a good job of this, however, that by the turn of the century Crawshay's "Welsh Method" of puddling will start to be adopted nationally. [THREAD = THE INDUSTRIAL REVOLUTION]

1789 [30th April] George Washington [=1781] is sworn in as the first President of the United States of America, with John Adams [=1770] as his Vice President. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE "THIRD ESTATE" GETS A VOICE **********

1789 The French clergyman Emmanuel Sieyès [Wikipedia biography=>next entry] publishes a pamphlet entitled "What is the Third Estate?" in which he sets out the grievances of the common people of France. His opening words explain his line of argument ...

"What is the Third Estate? Everything. What has it been hitherto in the political order? Nothing. What does it desire to be? Something."

By pointing out their systemic exploitation by their "betters" and by putting words to previously unspoken grievances, Sieyès strikes a psychological chord with the French masses and helps focus their anger on the French aristocracy. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [4th May-17th June] The Estates General: Having failed to achieve much through the Assembly of Notables [=1787] and taking advice now from the banker-minister Jacques Necker [1787<=11th July], Louis XVI of France [1787<=next entry] now summons a gathering of the États Généraux, another rarely convened debating chamber, this time of the clergy (headed by their cardinals), the nobles (headed by Gilbert, Marquis de Lafayette [Wikipedia biography=>11th July]), and the commoners (inspired by the likes of Emmanuel Sieyès [preceding entry<=4th July]). The gathering takes place at the Hôtel des Menus-Plaisirs [see it today], close to the Palace of Versailles. The elected deputy for the city of Paris is the astronomer-turned-politician Jean-Sylvain Bailly [Wikipedia biography=>next entry]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [28th May] The National Assembly: In the event there is little initial agreement amongst the États Généraux as to the way forward, and on 17th June the "Third Estate" - the commoners¹ - led by the minor nobleman occasional jailbird and tub-thumping journalist Honoré, Comte de Mirabeau [Wikipedia biography=>4th July] proclaim an Assemblée Nationale - an assembly of the people with self-declared executive powers. They select Jean-Sylvain Bailly [preceding entry<=next entry] as their first president. [THREAD = THE SHAPING OF THE MODERN WORLD]

¹ASIDE: The French equivalent word is "roturier" - neither a nobleman nor an ecclesiastic. However for whatever reason historians seem to have avoided the word roturier for the Third Estate, preferring instead "les Tiers" - roughly "the thirds". Curiously neither Sieyès nor Mirabeau are commoners at all, the former being a clergyman [i.e., First Estate] and the latter a nobleman [i.e., Second Estate]. This will not be the first time in the history of workers' protest that words are found for them by more articulate spokespersons, few of whom
(lawyers, small-town politicians, and journalists) have ever done a proper day's work in their lives.

1789 [19th-23rd June] **The Séance Royale and the "Tennis-Court Oath": Louis XVI of France** [preceding entry=>11th July] now resolves to appeal directly to the three estates of the **États Généraux** to act together as the three chambers of a coordinated Parliament. He orders the **Salle des États** closed while the necessary arrangements are made. Finding themselves locked out on the morning of 20th June the representatives gather instead in the tennis courts outside where they decide that the king is about to send troops against them and - led by **Jean-Sylvain Bailly** [preceding entry=>15th July] - quickly swear an oath of common cause against him. In the event the king simply invites them to a plenary session to be held on 23rd June. When this **Séance** finally takes place it turns out to be something of an anti-climax and the king's proposals are poorly received. Instead the **États Généraux** is peripheralised in favour of the **Assemblée Nationale**.

[THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE JACOBS EMERGE **********

1789 [After 4th July] **The Jacobin Club**: Shortly after the opening of the **États Généraux** a number of like-minded delegates start to attend secret side-meetings of their own. They will soon relocate into Paris where they start to call themselves the **Club des Jacobins**. Amongst their most famous members will be **Honoré, Comte de Mirabeau** [4th May=>5th October], **Maximilien Robespierre** [Wikipedia biography=>1791 (30th September)], the priest **Emmanuel Sieyès** [4th May=>1799 (20th July)], the physician **Geoffroy Seiffert** [no convenient biography], the general **Charles-François Dumouriez** [Wikipedia biography=>1792 (15th March)], and the lawyer **Jérôme Pétion de Villeneuve** [Wikipedia biography=>1791 (16th November)]. Their first president is **Armand II, Duc d'Aiguillon** [Wikipedia biography]. In the coming months they will shift from left-of-centre to far left ensuring more obsessively to plotting the downfall not just of the monarchy but also of many of their fellow revolutionaries. As it happens many of the founder members are comparatively conservative delegates from the Gironde in south-western France and hence become known to later historians as the "**Girondins**" [=>1792 (20th September)]. Another breakaway group will form the **Club des Feuillants** [=>1791 (16th July)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1 ASIDE: **Jacobinism** is still a commonly used descriptor for far left political agitation.

**RESEARCH ISSUE - THE PSYCHOLOGY OF POLITICAL EXTREMISM**: For a detailed introduction to psychological discussions of the relationship between personality and single-minded political ruthlessness see the **Companion Resource** [start with the entry for "Personality, Attitudes, and Beliefs" and follow the onward pointers].

1789 [9th July] **The National Constituent Assembly**: The **Assemblée Nationale** [=28th May] is re-established as the French government until replaced by the **Assemblée Legislative** two years later [=1791 (30th September)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [11th-13th July] **On 11th July Louis XVI of France** [20th June=>14th July] dismisses **Jacques Necker** [=4th May] for a perceived insult. Curiously this action is taken very badly by the population at large, who have lately come to regard Necker as a possible saviour of their cause. In the **Assemblée Nationale Constituante** [=9th July], meanwhile, **Gilbert, Marquis de Lafayette** [4th May=>15th July] presents a draft "**Declaration of the Rights of Man and of the Citizen**", and in the nearby cafés the 29-year-old anti-monarchist political journalist **Camille Desmoulins** [Wikipedia biography=>14th July] takes to the table tops to exhort his fellow radicals to direct action. [THREAD = THE SHAPING OF THE MODERN WORLD]
********** "THE PRESSURE OF MISERY" **********

1789 [14th July] **The French Revolution, 1789-1799**: This ten-year period of bloody social, economic, and political upheaval sees the French aristocracy decimated by the guillotine, the monarchy replaced with a committee-style republic, and war across Europe. The Revolution as such will eventually shade over into the French Revolutionary Wars. The wars are easy to date, but the Revolution is more conceptual and rumbles on at home even while the battles are being fought abroad. Here are the main events for the Revolution [*a separate list of events for the Revolutionary Wars, overlapping in time by some seven years, is given at 1792 (20th April)*] ...

The Storming of the Bastille, 1789; The Storming of the Tuileries, 1792; The First Republic, 1792; The Arrest of Louis XVI, 1792; The Abolition of the Monarchy, 1792; The Execution of Louis XVI, 1793; The Reign of Terror, 1793-1794; The War in the Vendée, 1793; The Directoire, 1795-1799; Napoléon and the Consulate, 1799

[THREAD = THE SHAPING OF THE MODERN WORLD]

********** MAJOR HISTORIC EVENT **********
********** REVOLUTION!!! **********
********** MAJOR HISTORIC EVENT **********

1789 [14th July] **The Storming of the Bastille**: This inaugural event in the French Revolution [*<=preceding entry*] takes place between a 1000-citizen Parisian mob whipped up by (amongst others) the aforementioned Camille Desmoulins [*11th July<=18th July*] and Georges Danton [*Wikipedia biography*] and the 114-man Royal garrison at the Bastille Prison under Bernard-Réné de Launay [*Wikipedia biography*] = dies this day]. After a four-hour firefight De Launay surrenders the building and is then one of the half dozen defenders to be lynched on the spot. The next morning François, Duc de La Rochefoucauld [*Wikipedia biography*] informs Louis XVI of France [*14th July<=>15th July*] of the previous day's happenings. "Is it a revolt?" the king asks. "No, Sire," Rochefoucauld replies, "It is a revolution". Expecting a military response makeshift barricades are thrown up across Paris ...

**WAR ART**: Much has been made of this day's events ever since, mainly to depict in heroic terms the glorious struggle of the oppressed against their oppressors. See for example the works of Bertrand Andrieu [*Wikipedia biography*], Charles Thévenin [*Wikipedia biography*], and Jacques-Louis David [*Wikipedia biography*] but note with caution our repeated warnings concerning the perils of romantic nationalism, much more on which in due course.

[THREAD = WW1 ROMANTIC NATIONALISM]

**ASIDE**: Jowett and O'Donnell (1992) warn us not to be too carried away by events such as this ...

"The key events of the eventual revolution were themselves all carefully orchestrated pageants of propaganda. The storming of the Bastille - the dreaded symbol of oppression full of tortured prisoners - has remained with us until today as an archetypal image when, in fact, the prison was almost empty ..." (p72).

1789 [15th July] **The Royal Climb-Down**: In the event, Louis XVI of France [*14th July<=17th July*] decides not to commit troops against the demonstrators, and to reinforce this point withdraws the regiments stationed outside Paris.

[THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [15th July] **The Garde Nationale**: The Assemblée Nationale Constituante [*<=9th July*] votes to establish a Garde Nationale, and appoints Gilbert, Marquis de Lafayette [*11th July<=26th August*] as its Commander-in-Chief. Their uniform is carefully chosen to
include the increasingly popular red, white, and blue motifs of the revolution. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [15th July] The Commune de Paris: The Assemblée Nationale Constituante [<=9th July] recognises the de facto administration of Paris as being the new occupants of the Hotel de Ville, and acknowledges Jean-Sylvain Bailly [19th June<=>17th July] as the city's Mayor. [THREAD = THE SHAPING OF THE MODERN WORLD]

1ASIDE: As nouns, the French words "Commune" and "Communité" both denote the physical facts and structures of a community. However the word commune also implies a psychological solidarity, which communité does not. Moreover with the forming of the Assemblée Nationale the word suddenly starts to be used - as here - to denote also the assemblies by which the communities are administered.

1789 [17th July] The Royal Endorsement: In an attempt to be non-confrontational Louis XVI of France [15th July<=>4th August] attends the Hotel de Ville in Paris, where he is welcomed by the Mayor, Jean-Sylvain Bailly [15th July<=>next entry], and presented with a revolutionary tricolour cockade [image]. Many aristocrats, meanwhile, are less convinced that have a future in the New France and seek sanctuary abroad. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [18th July] "La France Libre": Taking advantage of his sudden notoriety Camille Desmoulins [14th July<=>15th September] circulates an inflammatory pamphlet entitled "La France Libre" in which he preaches the disestablishment of the French monarchy and its replacement with a Republic. Desmoulins is also highly dismissive of the Mayor of Paris, Jean-Sylvain Bailly [preceding entry<=>1791], accusing him of being overly conservative. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [4th-12th August] The August Decrees: In a 19-clause statement of revolutionary credentials the Assemblée Nationale Constituante [<=9th July] attempts to repair the relationship between the Monarchy and the people by proclaiming (Article #17) Louis XVI of France [17th July<=>5th October] as "the Restorer of Liberty". Lesser Articles declare the feudal system abolished and address specific issues of rights and types of taxation (not least the Church's 10% "tithe" [= production tax]), access to land, and so on. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** FRANCE BECOMES A CONSTITUTIONAL MONARCHY **********

1789 [26th August] The Declaration of the Rights of Man and of the Citizen: The Assemblée Nationale Constituante [<=9th July] approves the final version of the draft presented to them on 13th July [<=q.v.] by Gilbert, Marquis de Lafayette [15th July<=>5th October]. Its central thesis is that "Man is born and remains free and equal in rights". [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [12th September] "The People's Friend": The physician-turned-journalist Jean-Paul Marat [Wikipedia biography<=1790] publishes a new polemical under the title "L'Ami du Peuple", in which he promotes radical ideals and berates whoever is deemed to be obstructing progress at the time. [THREAD = THE SHAPING OF THE MODERN WORLD]

1789 [15th September] "The Lamp-Post Speaks": Camille Desmoulins [18th July<=1790 (?7th April)] publishes "Discours de la Lanterne", a clever piece of inflammatory writing in which a Parisian lamp-post [image] proudly recalls how many dissidents have already been summarily lynched from its T-bar and promises to continue serving in like manner whenever the need arises. [THREAD = THE SHAPING OF THE MODERN WORLD]
1879 [5th October] **The Royal Arrest:** Suitably talked up in advance, a mob of Parisian women marches on the Palace of Versailles to protest the price of food. *Garde Nationale* units under Gilbert, Marquis de Lafayette [26th August<>1791 (21st June)] do their best to police the event but evidently many in their ranks are themselves revolutionaries at heart and after a day of confused exchanges *Louis XVI of France* [4th August<>1791 (21st June)] and Archduchess Maria Antonia ["Madame Deficit"] of Austria [1774<>1791] are escorted to the Tuileries Palace in central Paris, where they can be more effectively guarded. Honoré, Comte de Mirabeau [<>4th July] now prepares an advisory paper for the king in which he recommends (to no effect as it will turn out) a number of possible placatory responses. [THREAD = THE SHAPING OF THE MODERN WORLD]

1879 [10th October] **The Guillotine Proposed:** The French physician Joseph-Ignace Guillotin [Wikipedia biography] presents a paper to the *Assemblée Nationale Constituante* [<>9th July], in which he proposes "decapitation by means of a simple mechanism" as the universal method of capital justice in France. A sub-committee is formed to take the suggestion forward, and so the prototype mechanism will not be ready for testing for another 30 months [<>1792 (17th April)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 Around this time Richard Howe [1st Earl Howe]\(^{1788}\) [1782<>1794] upgrades the Royal Navy's numeric *Signal Book* [1782<>1816] and, for the first time, has it printed rather than circulated in manuscript. [THREAD = WW1 SIGNALLING AND COMMUNICATIONS]

**ASIDE - CODE SECRECY:** Corbett (*op. cit.*) explains that, although the principles upon which the Signal Book is grounded remain unchanged, the actual hoist-message allocation was regularly re-randomised. This was done to prevent the enemy compromising the system by simply acquiring a copy of the Signal Book for themselves. Royal Navy Signals Officers were accordingly made responsible for destroying their personal copy should their ship be boarded.

1790 The new *Blaenavon Ironworks* [1788<>1799] comes on stream with its first production run of pig iron. Output will reach 5460 tons annually in 1796 (Barber, 2002). [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** One of the Blaenavon furnaces remains in place to this day as part of the Blaenavon World Heritage Site [see tourist website].

1790 [13th February] **The Dechristianisation of France [II - The Monasteries and Convents]:** [...] Continuing its offensive against the Church *Assemblée Nationale Constituante* [<>1789 (9th July)] now decrees that all religious orders are to be dissolved and all monks and nuns given legitimate work [continues at 12th July ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 [???th April] **The Cordeliers Club:** Basing themselves in the Cordeliers district of Paris Jean-Paul Marat [1789 (12th September)<=>26th July] and Georges Danton [1789 (14th July)<=>1791
establish the "Club des Cordeliers" to promote an extreme left-wing agenda. Other significant members are Camille Desmoulins [1789 (15th September)<=>1791 (16th July)], Jacques Hébert [Wikipedia biography=>??th September], and Fabre d'Églantine [Wikipedia biography=>1793 (5th October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 [9th June] Upon the death of the Holy Roman Emperor, Joseph II of Austria [<=1781] his titles pass to his younger brother Leopold II of Austria [1770<=>27th July]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 [9th June] The Glamorgan Canal (I - Parliamentary Approval): The British Parliament approves the construction of a 25-mile canal to link the Merthyr Tydfil ironworks complex to the docks as Cardiff. Construction will begin in August and will be completed on 10th February 1794 [=>q.v.]. [THREAD = THE INDUSTRIAL REVOLUTION]

1790 [??th June] The Gloucestershire businessman David Tanner [1784<=>1793] acquires an old copper works at Lower Redbrook [map, etc.=>1793], Gloucestershire, and promptly converts it into a tinplating works. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: Tanner contracted much of his haulage to one Thomas Ansley [no convenient biography]. Ansley's trading accounts for the period 1794-1798 have survived and give a detailed insight into the nature of both businesses. See Morris (2008 online) for details, if interested.

1790 [12th July] The Dechristianisation of France [III - The Parishes]: [... Continued from 13th February] Continuing its offensive against the Church the Assemblée Nationale Constituante [<=1789 (9th July)] now decrees that all local churches are to be dissolved and all 130,000 priests redeployed as employees of the state. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 [26th July] Jean-Paul Marat [??th April<=>1792 (10th August)] publishes a pamphlet entitled "C'en Est Fait de Nous" [= "it's all up with us"] in which he warns revolutionaries against resting on their laurels when there are still many hundreds of heads worth chopping off. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 [27th July] The Treaty of Reichenbach: This treaty between Frederick William II of Prussia [1786<=>1791 (27th August)] and the Holy Roman Emperor, Archduke Leopold II of Austria [9th July<=>1791 (27th August)] settles a number of the Austrian-Prussian border disputes which have recently arisen thanks to weakening (a) of the Polish-Lithuanian Commonwealth in the north, and (b) of the Ottoman Empire in the Balkans. [THREAD = THE SHAPING OF THE MODERN WORLD]

1790 [??th September] "Le Père Duchesne": Seeking to promote the Club des Cordeliers [<=??th April] the activist Jacques Hébert [??th April<=>1791 (21st June)] starts publishing a polemical entitled "Le Père Duchesne" [roughly "Papa Duchesne"], so named after its front-page persona, namely an avuncular pipe-smoking know-it-all who speaks the language of the masses to tell the masses what they ought to be thinking¹ (which is, needless to say, what the editor thinks they ought to be thinking). Over the coming months Hébert and his followers will prove ardent supporters of the Dechristianisation Movement [<=1789 (2nd November)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

¹ASIDE: This device will be one of several deployed by Joseph Goebbels [=>1921] in bringing the Nazis to power in the 1930s.
1791 **Automation, Control, and Artificial Intelligence [XXV - Industrial Calculation (De Prony)]:** [Continued from 1787 (Mead)] The French mathematician Gaspard de Prony [Wikipedia biography=>1821] undertakes the production of logarithm and trigonometric tables on behalf of the French National Assembly, devolving the number-crunching onto a team of 90 "computers", each performing repetitive simple calculations [sub-thread continues at 1801 (Jacquard) ...]. [THREAD = WWI CYBERNETICS, COMPUTATION, AND CONTROL]

1791 **[16th February]** The National Gendarmerie: The long-established Marshalsey of Royalist France is renamed the "Gendarmerie Nationale" and deployed in revolutionary service alongside the Garde Nationale as a law enforcement agency. [THREAD = THE SHAPING OF THE MODERN WORLD]


1791 **[6th April]** Recently retired from service with the Coldstream Guards, Charles Gould II [Morgan]1792 (16th November) [2nd Baronet Tredegar]1800 [1760 (4th February)<=>1792(15th/16th November)] marries Mary Stoney [no convenient biography=>1792]. Their union will be blessed with eight children, the first four of which will be boys, as follows ...

10th April 1792 Charles Morgan Robinson Morgan [1st Baron Tredegar]1859 [Wikipedia biography=>1846]
12th July 1794 George Gould Morgan [History of Parliament biography]
2nd September 1800 Charles Augustus Samuel Morgan [no convenient biography]
15th September 1803 Charles Octavius Swinnerton Morgan [Wikipedia biography]

[THREAD = THE INDUSTRIAL REVOLUTION]

1ASIDE: The apparent anomaly that a 1st peerage should follow a 2nd is explained by the fact that between the dates involved - 1800 and 1859, respectively - the earlier title had lapsed upon death, and thus had to be re-created.

1791 **[14th June]** Le Chapelier's Law: The Assemblée Nationale Constituante [<=1789 (9th July)] passes a law originally proposed by the lawyer Isaac le Chapelier [Wikipedia biography=>16th July] to restrict workers’ rights to form trades unions or to go on strike. [THREADS = THE SHAPING OF WW1 EUROPE and THE INDUSTRIAL REVOLUTION]

1791 **[21st June]** The Flight to Varennes: Fearing for their lives Louis XVI of France [1789 (5th October)<=>16th July] and Archduchess Maria Antonia of Austria, Queen Consort of France [1789<=1792] slip their guards at the Tuilleries Palace, flee Paris, and head for Montmédy, Lorraine, en route for sanctuary in the Austrian Netherlands. They are re-arrested at Varennes-en-Argonne and are back at the Tuilleries within the week. Interestingly the mere fact of their escape attempt renders the population less sympathetic to the Monarchy, and the idea of Republicanism - life without a royal family - suddenly becomes acceptable. One commentator in particular - Jacques Hébert [1790 (7th September)<=>16th July] turns his periodical, *Le Père Duchesne*, against the Commander-in-Chief of the Garde Nationale, Gilbert, Marquis de Lafayette [1789 (5th October)<=>17th July], for having allowed the escape to take place. [THREAD = THE SHAPING OF THE MODERN WORLD]

1791 **[16th July]** The Feuillant Club: Unable to reach an accommodation with the far-left members of the *Club des Jacobins* [<=1789 (4th July)] Antoine Barnave [Wikipedia biography] leads a body of moderates to form a 264-delegate centrist breakaway group known as
the *Club des Feuillants*, so named after the Convent where they hold their meetings. Another prominent member is *Isaac le Chapelier* \[14th June<=>3rd September\]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1791 \[16th/17th July\] *The Champ de Mars Petition and Massacre: Camille Desmoulins* [1790 (7th April)<=>1792 (9th August)] presents a petition to the *Commune de Paris* \[<=1789 (15th July)] calling for the deposal of *Louis XVI of France* [21st June<=>10th August]. The following day a large crowd of Parisians assembles in the Champ de Mars to sign said petition. Urged on by *Georges Danton* [1790 (??th April)<=>1792 (9th August)] and Desmoulins they become so unruly that they are fired upon by a detachment of the *Garde Nationale* commanded by *Gilbert, Marquis de Lafayette* \[<=21st June\] personally, resulting in an unknown number of dead and wounded. The exchange is witnessed by *Jacques Hébert* [21st June<=>1792 (9th August)], who now intensifies *Le Père Duchesne*‘s criticism of Lafayette, leading quickly to his resignation. Fearing reprisals Danton flees to temporary sanctuary in Britain. [THREAD = THE SHAPING OF THE MODERN WORLD]

1791 \[27th August\] *The Declaration of Pillnitz: The Holy Roman Emperor, Archduke Leopold II of Austria* [1790 (27th July)<=>1792 (10th August)], and *Frederick William II of Prussia* [1790 (27th July)] issue a statement promising a military response should the revolutionaries in France harm their king. However as is so often the case in the history of international diplomacy this well-intentioned intervention actually makes matters worse in that it plays directly into the hands of French extremists such as *Jacques Brissot* [Wikipedia biography]=>1792 (20th September)], whose eventual response is to declare war on Austria the following Spring \[=>1792 (20th April)\]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE CONSTITUTION OF 1791 **********

1791 \[3rd September\] *The Constitution of 1791: Drafted by (amongst others) Isaac le Chapelier* \[<=16th July\] the *Assemblée Nationale Constituante* \[<=9th July\] adopts an attempt at a constitutional monarchy. [THREAD = THE SHAPING OF THE MODERN WORLD]

1791 \[30th September\] *The Abolition of the Monarchy and the Legislative Assembly: The Assemblée Nationale Constituante* \[<=9th July\] approves a motion for its own dissolution proposed by *Maximilien Robespierre* [1789 (4th July)<=>1792 (20th September)], appointing a 745-member *Assemblée Législative* in its place, to take effect the following morning. The new *Assemblée* will remain the de facto French government until replaced by the *Convention Nationale* of the Republic of France a year later \[=>1792 (20th September)\]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** REVOLUTIONARIES IN IRELAND TOO **********

1791 \[??th October\] The Irish lawyer-politician\(^1\) *Wolfe Tone* [Wikipedia biography]=>1796 (15th December)] establishes the "Society of the United Irishmen", to pursue a raft of liberal reforms. This of course requires (a) overcoming sectarian animosity between the Catholics and Protestants in Ireland, and (b) breaking the all-too-often asymmetrical power relationship between Ireland and England. This places him on the extremist left of Irish nationalist politicians such as *Henry Grattan* [Wikipedia biography] and therefore leaves him prey to malicious foreign interference in times of war \[continues at 1796 (15th December) ...\]. [THREAD = THE SHAPING OF THE MODERN WORLD]

\(^1\)RESEARCH ISSUE - THE PSYCHOLOGY OF POLITICAL EXTREMISM (II - SUBTYPES OF "THE ANAL PERSONALITY")[: Readers unfamiliar with basic Freudian Psychoanalytic Theory should pre-read the Wikipedia briefing on the subject before proceeding.] We have already mentioned \[<=1789 (4th July (INSET))\] how little is scientifically known about the psychology of political extremism. This sad state of affairs is made worse when the additional point is made that one of the major candidate classes of explanation is Psychoanalytic Theory.
This is because Psychoanalytic Theory, in its various guises, is intrinsically unscientific—it may well be the truth, but its hypothetical mental structures and processes do not pass the acid test of science, namely that they should be objectively testable. That said, standard Freudian personality theory holds that an "anal personality" is an immature personality in which too much is made of the act of defecation, this being the infant's "first 'gift'" (Freud, *Introductory Lectures*, 1917/1962, p357) and therefore also the first gift to be withheld in any attack of frustrated anger. It is then only a short further step to the notion of "anal retentiveness" as a personality trait in those in whom this infantile contrariness fails properly to resolve. We also like suggestions by the Canadian blogger David Gordon Bain [check him out at http://worldthought.com/user/59-david-gordon-bain/?tab=topics] that in fact there are ten "anal subpersonalities", and we find two of these particularly resonate with descriptions of political zealotry. These are (a) his "anal-righteous personality", which he sees in preachers, lawyers, some teachers, and social activists, and (b) his "anal-sadistic personality", which he sees in people short on human kindness.

1791 [16th November] Jean-Sylvain Bailly [1789<=1793 (10th November)] is replaced as mayor of the *Commune de Paris* by Jérôme Pétion de Villeneuve [1789 (4th July)<=1793 (6th April)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 In collaboration with the Harford and Partridge Partnership [1783<=1793] the British businessman Thomas Hill [no convenient biography] starts work on an ironworks at Nantyglo [1765<=1796], South Wales. Unfortunately, the collaboration will collapse only four years later, resulting in the works being mothballed for 15 years. Around the same time the Cwm-y-Felin Ironworks [1785<=1796] is bought out by George Croker Fox [no convenient biography] and the Cheadle Brass Wire Company takes over the Penclawdd Copperworks [<=1788]. [THREAD = THE INDUSTRIAL REVOLUTION]

1792 [15th March] Charles-François Dumouriez [1789 (4th July)<=20th September] is appointed Minister for Foreign Affairs and uses his influence over the coming weeks to help make the case for war against Austria [=20th April]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [10th April] Details for Charles Morgan Robinson Morgan [1st Baron Tredegar]1859, born this day, are entered under his parents' wedding day [=1791 (6th April)]. [THREAD = THE INDUSTRIAL REVOLUTION]

1792 [17th/25th April] The Guillotine Implemented: France's new execution mechanism [=1789] is tested on a live sheep and three human cadavers and is pronounced fit for service. On 25th April one Nicolas Pelletier, highwayman, then has the dubious honour of being the first living person to lose his head. The first political criminal¹, the unfortunate Louis Collenot d’Angremont [Wikipedia biography], will follow on 21st August. [THREAD = THE SHAPING OF THE MODERN WORLD]

¹ASIDE: By "political criminal" we mean one whose only crime is to disagree with those who lead the mob. Up to 40,000 political criminals will go to "Madame Guillotine" as the revolution unfolds, many for "crimes against liberty".

1792 [20th April] The French Revolutionary Wars, 1792-1802: Responding to the talked-up threat of an Austrian attack [=1791 (27th August)] the *Assemblée Legislatif* [=1791 (30th September)] declares war on Austria. There will follow two distinct wars separated by a short and fitful peace. Here is the main sequence of events ...

THE WAR OF THE FIRST COALITION, 1792-1797 [see separate indexing entry]
Peace 1797-1798
THE WAR OF THE SECOND COALITION, 1798-1802 [see separate indexing entry]
The overall outcome of the wars is that Russia wins. As for the rest of Europe they wear themselves down keeping France in her place, only to create a power vacuum into which a young general named Napoléon Bonaparte [Napoléon I of France] will move in 1799. [Wikipedia biography] => 1793 (18th September)] [THREAD = THE SHAPING OF THE MODERN WORLD]

PROPAGANDA IN THE FRENCH REVOLUTIONARY WARS: Jowett and O'Donnell draw attention to the Revolution's highly distinctive civilian uniform ...

"The adoption of specific forms of dress was a major propaganda device [...]. The national colours of red, white, and blue were seen everywhere, as was the Phrygian stocking cap and the tricolor sash. Crowds were manipulated with fireworks displays, the burning of effigies [...], and especially patriotic music, in which the great theme of the Marseillaise remains even today a stirring tribute to the power of musical propaganda. The revolution even had its own official propaganda artist, the great [Jacques-Louis David] [1789 (14th July) <= 1792 (2nd October)]] whose works had been an incitement to revolution before 1789 and who served in this capacity [...] until he fell out of favour [...] in 1794” (pp72-73).

Public opinion in Britain was kept suitably on message by the pro-Royalist, pro-War, Establishment, fronted by the (then) Under-Secretary of State for Foreign Affairs George Canning [Wikipedia biography], who was, in turn, increasingly assisted by the political cartoons of James Gillray [Wikipedia biography] >= 1796 (October) and - from 1797 - by his own newspaper the Anti-Jacobin [Wikipedia factsheet] >= 1797 (20th November).

1792 [20th April] The War of the First Coalition, 1792-1797: This five-year war is fought as part of the broader French Revolutionary Wars [<= preceding entry] between France and a coalition of nations including Austria, Sardinia, Naples, Prussia (until the Treaty of Basel [>=1795]), Spain (ditto), and Britain (from 1793). The U.S.A. declares its neutrality, much to the annoyance of the French who had helped them to independence only ten years previously. The war begins when France declares war on Austria and then spreads out across north-western Europe. Here are the main events ...

- War on the Rhine, 1792; The Battle of Valmy, 1792; The Battle of Jemappes, 1792; The Battle of Neerwinden, 1793; The Levée en Masse, 1793; The Battle of Hondschoote, 1793; The Battle of Menin, 1793; The Siege of Toulon, 1793; The Glorious First of June, 1794; The Battle of Fleurus, 1794; The Peace of Basel, 1795; The Treaty of Loeben, 1797; The Treaty of Campo Formio, 1797

The overall outcomes of the war are (a) that France conquers the Austrian Netherlands and establishes a puppet "Batavian" Republic [>=1795 (19th January)], (b) that Prussia becomes more assertive as one of the three German-speaking forces in Europe, (c) that Alsace and Lorraine are confirmed as French, and (d) that the French army is thoroughly purged of aristocratic structures and traditions with surprising success. [THREAD = THE SHAPING OF THE MODERN WORLD]

1 ASIDE: The three German-speaking power bases at this moment in time are (1) the north-western states around Brunswick-Saxon-Hanover (presently aligned with Britain by sharing the ruling House of Hanover), (2) the north-eastern states of Brandenburg-Prussia, and (3) the Austrian (Holy Roman) Empire.

1792 [25th April] War on the Rhine: As one of the first events in the War of the First Coalition [<= 20th April], Prussia declares war against France. Defiantly the tricolors go up in Strasbourg and a certain Claude Rouget de Lisle [Wikipedia biography] composes a new patriotic song - La Marseillaise - to brighten everyone's spirits. Thanks to an inspired combination of music, lyric, and artistic vision, the work is an instant hit. [THREAD = THE SHAPING OF THE MODERN WORLD]
MUSIC AND WAR: \textit{La Marseillaise} will be adopted as the French National Anthem in 1795 and features famously as such in the French-Nazi sing-off in Michael Curtiz's 1942 propaganda movie "Casablanca" (Warner Brothers) [see this scene now].

1792 (18th May-27th July) **The Polish-Russian War, 1792**: This war takes place between the Polish-Lithuanian Commonwealth and the Russian Empire. The Russians mount two converging offensives, a northern one approaching Warsaw from the north-east and a southern one from the south-east. Both Russian offensives make good progress, albeit the Commonwealth armies are avoiding decisive confrontation until they have fallen back closer to Warsaw. During July, however, a succession of Russian victories persuades Stanislaw Poniatowski of Poland [Wikipedia biography] to seek a ceasefire [continues 1793 (23rd November) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 (3rd June) **The Monmouthshire Canal (I - Parliamentary Approval)**: The British Parliament approves the construction of a 22-mile canal with an eastern arm running from Pontnewynydd (coordinates, etc.), Pontypool, to Newport and a western arm running onward to Crumlin [continues 29th August ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

********** ROMANTIC NATIONALISM COMES TO WALES **********

1792 (21st June) The Welsh poet Edward ["Iolo Morganwg"] Williams [Wikipedia biography] establishes the "Gorsedd" [= "throne"], a community of Welsh bardic poets dedicated to celebrating the Ancient Britons and their druidic traditions, Welsh history, and no little Arthuriana. [THREAD = WWI ROMANTIC NATIONALISM]

1792 (25th June) Upon the death without heir of John Morgan [of Dderw] [<=1787] the Tredegar Estates [1787 (24th May)<>1797 (14th February)] pass (for want of a male heir) to his older sister, Jane Gould [née Morgan] [1758 (18th February)<>1797 (14th February)] and her husband (since 1758) Sir Charles Gould 1 [Morgan] [1792 (16th November) [1758 (18th February)<>1792 (15th November)]. [THREAD = THE INDUSTRIAL REVOLUTION]

********** CANADA IS CONCEPTUALISED **********

1792 (27th June) Presently resident in Quebec, Edward [Duke of Kent and Strathearn] [Wikipedia biography] becomes the fourth son of George III of England and Ireland, Elector of Hanover [1774<=1801], uses the term "Canadian" to refer to both the British and the French communities in British North America. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 (25th July) **The Brunswick Manifesto**: The Prussian field-marshal Charles, Duke of Brunswick-Wolfenbüttel [Wikipedia biography] issues a statement warning the French not to allow any harm to come to their king, or face a Prussian military response. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 (9th August) At the height of its powers the \textit{Club des Cordeliers} [<=1790 (?7th April)] sees three of its number, namely Georges Danton [1791 (17th July)<=10th August], Camille Desmoulins [1791 (17th July)=<10th August], and Jacques Hébert [1791 (16th July)=<1793 (10th November)] occupy the Paris \textit{Hôtel de Ville} and proclaim new grievances. Also active at this time is the priest-turned-activist Jacques Roux [Wikipedia biography] who helps mobilise the common people of Paris, the "Sans-Culottes", as an on-demand armed mob. [THREAD = THE SHAPING OF THE MODERN WORLD]

\textbf{KEY TERMINOLOGY - THE "SANS-CULOTTES"}: The "Sans-Culottes" were so called because they were too poor to wear the silk culottes presently fashionable amongst the better off. They were an army of politically inspired lower orders, heroes to the masses, but detestable to their enemies.
**ASIDE - THE SANS-CULOTTES IN WW1:** We shall be examining issues of psychological identity and self-perception in WW1 combatants in some detail in due course. For the French fantassins (= infantrymen) and their commanders this means factoring out the respective residues of the French Revolution within them, and we shall do this when discussing the French Army Mutinies of 1917 [=1917 (27th May)].

********** THE REVOLUTION TAKES TO THE STREETS AGAIN **********

1792 [10th August] **The Storming of the Tuilleries and the Arrest of Louis XVI:** The Sans-Culottes [=preceding entry] take it upon themselves to move in force on the Tuilleries Palace. Louis XVI of France [16th July]<=21st September] and Archduchess Maria Antonia of Austria [1791<=1793 (21st January)] seek sanctuary with the Assemblée Legislative [=1791 (30th September)] but will be formally arrested on 13th August and imprisoned in the mediaeval Temple Tower. Jean-Paul Marat [1790 (26th July)<=20th September] makes a rare public appearance. The following day Georges Danton [9th August]<=20th September] is appointed as Minister of Justice and Camille Desmoulins [9th August]<=1793 (5th December)] as Secretary General. Equally ominously, the Revolutionary Commune also prepares a list of "enemies of the revolution", including senior Feuillants [=<=1791 (16th July)] and many of the city's priests, and by the end of the month the prisons of Paris are full [continues 2nd September ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [19th August] **The Battle of Verdun:** This battle is fought as part of the Lorraine Campaign of the War of the First Coalition [<=20th April] between an invading Prussian/Austrian army under Charles, Duke of Brunswick-Wolfenbüttel [25th July]<=20th September] and the French garrison at Verdun under Nicholas-Joseph Beaurepaire [Wikipedia biography=dies this day]. The outcome is a Prussian/Austrian victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [29th August] **The Brecknock and Abergavenny Canal (I - As Originally Conceived):** Formal plans are submitted for a canal to be built to serve the eastern limits of the South Wales iron and coal industry, that is to say, from Newbridge-on-Usk (giving onward access by river to Newport docks) to Gilwern, the better to service the Clydach Vale Ironworks [1785<=1796] and the Glanwrwyne Ironworks [1787<=1794]. The planned route will shortly (19th September) be extended further up the Usk Valley past Gilwern to Brecon. Further changes will be debated in October resulting in the idea of a Newbridge-on-Usk terminus being abandoned and the southern end of the canal being routed instead to connect to the Monmouthshire Canal [3rd June]<=1793 (28th March)]. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE - BRECON OR BRECKNOCK:** "Brecknock" is a long-standing Anglicisation for the Welsh county and town of Brycheiniog. "Brecon" is the preferred modern English.

********** THE REVOLUTION BECOMES "HIDEOUS" **********

1792 [2nd-6th September] **The "Septembriseurs":** [... Continued from 10th August] Beset by internal differences on both objectives and methods the Assemblée Legislative [=1791 (30th September)] collapses into chaos and the Sans-Culottes [=9th August] redirect their anger onto the "counter-revolutionaries" presently crowding Parisian jails. Beginning at the Abbey-Prison of Saint-Germain-des-Prés, some 200 priests and over a thousand other classes of "offender" are massacred. The rioters also storm the Salpêtrière Hospital [Wikipedia entry], releasing 134 prostitutes back into circulation but summarily executing the 25 madwomen they find there. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [20th September] **The National Convention:** The Assemblée Legislative [=1791 (30th September)] hand over to the first session of a replacement Convention Nationale. High
on their list of priorities is the task of drafting an acceptable new constitution. The Convention will remain the de facto French government until replaced by the Directoire three years later (late 1795 - 27th September), although most of the necessary strategising is done behind closed doors, especially once the Comité de Salut Public [late 1795 (6th April)] finds its feet. It is traditional to consider the new assembly as being fundamentally divided into two opposing factions, the loosely knit Jacobins (late 1789 (4th July)) such as Georges Danton [10th August <= 1793 (10th March)], Maximilien Robespierre [1791 (30th September) <= 1793 (27th July)], Jean-Paul Marat [10th August <= 1793 (13th July)], Jacques Brissot [1791 (27th August) <= 1793 (31st May)], and (the youngest member) the 25-year-old lawyer Louis de Saint-Just [Wikipedia biography] 1793 (24th April). The "Montagnards" - so named because they sit higher than the main assembly - are the most senior representatives of all. [THREAD = THE SHAPING OF THE MODERN WORLD]


********** FRANCE BECOMES A REPUBLIC **********


1792 [28th October] Recognising the potential of art as an aid to state-of-mind politics the artist-politician Jacques-Louis David [2nd October <= 1793 (13th July)] appeals to the Convention Nationale [<=20th September] for the creation of a series of commemorative medals 1 glorifying the revolution. [THREAD = WW1 ROMANTIC NATIONALISM]

1 ASIDE: Artistic devices similar to this will be deployed by Joseph Goebbels [1921] in bringing the Nazis to power in the 1930s.

RESEARCH ISSUE - ART AND THE PSYCHOLOGY OF WAR: West Chester University's Wayne Hanley [University homepage] has studied what he calls "the transmission of revolutionary ideals through the art of the medal" (Hanley, 2003 online), and notes the
political effectiveness of relatively simple images of recent events. Amongst the most popular medals produced at this time are celebrations of the Storming of the Bastille [<=1789 (14th July)] and the Royal Arrest [<=1789 (5th October)]. Amongst the tricks of the medal-propagandist’s trade is the addition of summative tag-line captions such as "Live in Freedom, or Die", and the inclusion of revolutionary symbols such as flags, caps, cockades, the fasces (symbolising strength in unity), and the pitchfork (symbolising impromptu mass participation in armed struggle). Hanley also hosts a website dedicated to the relationship between political identity and art. An essay by Cameron (2003 online) explores how crowd violence is incorporated into image-making. Analysing contemporary sources she distinguishes between portraits, satires of known counter-revolutionary subjects such as the clergy, aristocrats, etc., and straightforward depictions of actual events. She notes not just that "in 1790 only a small percentage of the known revolutionary images depicted actual events and an even smaller percentage of those depicted violence and the crowd", but also that the same still holds true today. As for the artistic strategies available she identifies straightforward action, panoramic sweep, centripetal focus, episodic incident, and frieze with explanatory inscription. And as for the types of violence shown she identifies symbolic violence, participatory violence, complicit violence, anticipatory violence, and ritualised violence. Censer and Hunt (2003 online) then consider why depictions of violence can still be effective even when sanitised of all the attendant horrors, as will routinely be the case when the image in question is intended for commemorative crockery, coins, medals, etc. Here is their general observation ...

"Images produced in the immediate aftermath of the attack [on the Bastille] typically rendered violence in a stylised fashion; men are shown carrying pikes, muskets, shovels, and scythes and dead bodies litter the ground, but the actual killing takes place either elsewhere or earlier. The attack occurs largely out of sight. [...] Clearly artists envisioned the event as momentous but they did not dwell on the violence of the event" (Op. cit., p2). [THREAD = MAINSTREAM AESTHETIC THEORY]

RESEARCH ISSUE - ROLAND BARTHES (1973) ON "DIONYSIAN COMMUNICATION": [Readers unfamiliar with the "Dionysian" aspect of aesthetic theory should pre-read the Companion Resource entry for <1973 Roland Barthes>.] When it comes to aesthetic theory, violence is as difficult to explain scientifically as is beauty. You feel upset with the one and awed by the other, but both feelings come from deep within you without explanation. They just are. This is because painting for emotional effect involves a special sort of communication, namely that which takes place at a sub-conscious level. It is Dionysian communication, raw and instincntual rather than intellectual, and as such is little better understood nowadays [= 2014] than it was in 1973. [THREAD = MAINSTREAM AESTHETIC THEORY]

WAR ART - "BRUTUS", "LIBERTY", AND "MARIANNE": Voltaire's (1729) play "Brutus" tells how in 509BCE one Lucius Junius Brutus [Wikipedia biography] helped to overthrow the Tarquinian Roman dynastic monarchy to found the Roman Republic, becoming one of the two inaugural consuls. In this position of authority he then discovers that his own two sons are conspiring against the new Republic and coolly puts the Republic above the Self and has them both executed. The work was thus a natural allegory for the newly created French Republic. Indeed Voltaire's works had already inspired a series of engravings by Jean-Michel Moreau [Wikipedia biography] in the 1770s, a point not lost on Jacques-Louis David [linking dates above], who depicted the executions to great acclaim in his (1789) painting "Brutus Receives the Bodies of his Sons" [check it out]. On 17th November 1790 a performance of Voltaire's "Brutus" was similarly well-received, leading to that work being selected in 1793 by the Comité de Salut Public [=>1793 (27th July)] to be performed weekly, and a "Feast of Brutus" being devised as part of the revolutionary dechristianisation movement [=>22nd September]. As for the fictional heroines Liberté and Marianne, their images first appeared rather spontaneously during the early years of the Revolution, and only as their powers to inspire became apparent were they taken up officially. [THREAD = WW1 ROMANTIC NATIONALISM]
ASIDE - "BRUTUS", "LIBERTY", AND "MARIANNE" IN WW1: "Brutus", "Liberty", and "Marianne" hit the international stage in 1793 when they lent their weight to the **Levée en Masse** [=1793 (23rd August)], to which 850,000 *citoyens* loyally responded, many paying the ultimate price for their naïveté. By the time of the Franco-Prussian War [=1870 (19th July)] *Marianne-Liberté* had metamorphosed into Liberty as she would be modelled by Frédéric Bartholdi in his world-famous **Statue of Liberty** [=1886 (28th October)]. Even in 1914, when France was mobilising for WW1 and Brutus had long since fallen into disuse, *Marianne* was as powerful a goddess of recruitment as ever, appearing (on the left, as viewed) in this 1914 poster ...

**RESEARCH ISSUE - ROBERT GRAVES (1948) ON THE "WHITE GODDESS":** [Readers unfamiliar with the "White Goddess" aspect of aesthetic theory should pre-read the Companion Resource entry for <1948 Robert Graves>.] There is no scientific explanation of the psychological allure of goddess figures, even though they figure widely in many cultures. Psychoanalytic theories emphasise various grades of fixation with the mother figure, and so too does Robert Graves’ (1948) theory of the "White Goddess". However as with the psychology of political extremism [=1791 (?7th October)], neither type of theory is objectively testable, and so neither can be assessed as scientific. We shall be meeting Robert Graves again on a number of occasions because he was, of course, not just a literary theorist, but a decorated WW1 hero. [THREAD = WW1 ROMANTIC NATIONALISM]

1792 [6th November] The **Battle of Jemappes**: This battle takes place as part of the Austrian Netherlands Campaign of the War of the First Coalition [=1792 (20th April)] between a French army under Charles-François Dumouriez [20th September<=1793 (18th March)] and Louis Philippe [3rd Duke of Orléans] [1793 (1 of France)] and an Austrian army under Albert of Saxe-Teschen. The outcome is a French victory, followed by the fall of Brussels on 14th October. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [11th December] The **Trial of Louis XVI** [I - The Case for the Prosecution]: Louis XVI of France [Deposed] [21st September<=1793 (15th January)] is brought before the **Convention Nationale** [=20th September] to hear charges of high treason and crimes against the state. The prosecution make much of self-incriminating documents discovered a few days previously in the "*Armoire de Fer*" [= "iron chest"], the king’s private correspondence [continues 26th December ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [15th December] The **Convention Nationale** [=20th September] decrees that French armies should be allowed to loot conquered territory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1792 [26th December] The **Trial of Louis XVI** [II - The Case for the Defence]: [... Continued from 11th December] The **Convention Nationale** [=20th September] now hears arguments in the king’s defence [continues 1793 (15th January ...)]. [THREAD = THE SHAPING OF THE MODERN WORLD]
1793 **Friendly Societies**: The British Parliament passes the *Friendly Societies Act, 1793*, encouraging workers to pay into "Friendly Societies" - private social security funds - rather than rely on state or parish resources. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE - FRIENDLY SOCIETIES**: The rise of the Friendly Society movement in the late 18th century has since been recognised as a major step in the evolution of the modern British working class.

1793 **Jeremiah Homfray** [1789<=>1796] sells his interest in his *Ebbw Vale Ironworks* [1789<=>1796] to the *Harford and Partridge Partnership* [1792<=1796] and turns increasingly to mineral lease speculation for a living. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE**: He will go bankrupt in 1813 and spend the rest of his life [d. 1833] in France.

1793 The American chemist **John Harrison** [no convenient biography] patents the "lead chamber" system for the production of moderately concentrated sulphuric acid [compare 1831 (Phillips)]. His company will remain in production until taken over by the DuPont Corporation in 1917. [THREAD = THE WW1 ARMAMENTS INDUSTRIES]

1793 A third blast furnace is added at the *Dowlais Ironworks* [1786<=1799], raising output to 3000 tons a year. Around the same time the Pont-y-Cafnau wooden tramway bridge entering the *Cyfarthfa Ironworks* [1789<=1795] from the north-east is replaced with an iron one.1

**ASIDE**: The iron Pont-y-Cafnau bridge [Wikipedia detail and image] remains in use (albeit only as a foot bridge) to the present day, and is the world's oldest iron railway bridge.

1793 [??th January] Responding to developments elsewhere in Europe, Britain's Master-General of Ordnance, **Charles Lennox, 3rd Duke of Richmond** [Wikipedia biography] establishes two troops of "Horse Artillery", each with six 6-pdr guns. [THREAD = THE WW1 ARMIES]

1793 [15th/16th January] **The Trial of Louis XVI** [III - The Verdict]: [... Continued from 26th December] The *Convention Nationale* [<=1792 (20th September)] votes 693:nil (with 23 abstentions) that **Louis XVI of France** [Deposed] [1792 (26th December)<=21st January] is guilty as charged. The following day they vote again on what sentence to apply, one of the loudest calls for execution coming from the *Jacobin* activist **Joseph Fouché** [Duc d'Otrante]1808 [1792 (22nd September)<=11th March]. The vote is 361 for immediate execution and the sentence is duly carried out on 21st January. **Archduchess Maria Antonia of Austria** [1792 (10th August)<=16th October] now becomes known as "Widow Capet" and will follow her husband to the guillotine later in the year [=16th October]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [1st February] France declares war on Britain and the Dutch Republic. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [15th February] Recently dismissed by the *Convention Nationale* [<=1792 (20th September)] from his post as Secretary for War, **Jean-Nicholas Pache** [1792 (22nd September)<=31st May] is elected Mayor of Paris. Over the coming weeks he will (a) have the slogan "Liberté, Égalité, Fraternité" daubed across the city, and (b) become increasingly confrontational with the *Girondin* faction in the *Convention Nationale* [<=1792 (20th September)]. [THREAD = THE SHAPING OF THE MODERN WORLD]
1793 [24th February] With war looming on several fronts the Convention Nationale [<=1792 (20th September)] demands 300,000 conscripts from across the various regions of France. [THREAD = THE WW1 ARMIES]

1793 [10th March] The Revolutionary Tribunal: At the behest of Georges Danton [1792 (20th September)<=>6th April] the Convention Nationale [<=1792 (20th September)] establishes a Tribunal Révolutionnaire to help bring counter-revolutionaries to book. The lawyer Antoine Fouquier de Tinville [Wikipedia biography] is appointed Public Prosecutor and sets about a 15-month spree of trials in which 2596 death sentences are handed down, including many purged Girodins, Hébertists, and Dantonists. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [11th March] War in the Vendée [I - The Initial Uprising]: Never totally supportive of the Parisian-led revolution and angered now (a) by repression of free worship, and (b) by the quota of conscripts served upon it [<=24th February], the Vendée [= Nantes and the Lower Loire] declares itself in rebellion and forms its own "Catholic Army" to fight its corner. Led by Louis d'Elbée [Wikipedia biography] and Henri de la Rochejaquelin [Wikipedia biography] they achieve a number of early victories over Republican forces [continues at 1st August ...], [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [18th March] The Battle of Neerwinden: This battle is fought as part of the Flanders Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Charles-François Dumouriez [1792 (6th November)<=>4th April] and a marginally smaller Austrian army under Prince Josias of Saxe-Coburg-Saalfeld [Wikipedia biography] The outcome is an against-the-odds victory for the Austrians, thanks to the greater experience of their troops. The battle is noteworthy in the present context for demonstrating that revolutionary zeal is not - of itself - a substitute for proper training. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [28th March] The Brecknock and Abergavenny Canal (II - As Approved): [Continued from 1792 (29th August)] The British Parliament gives the go-ahead for this canal project in its amended form [<=1792 (29th August)], that is to say, to be connected up with the Monmouthshire Canal [1792 (29th August)=>1794] at Pontypool. [THREAD = THE INDUSTRIAL REVOLUTION]

1793 [4th April] The Defection of the Generals: Facing accusations of cowardice and incompetence for their performance at the Battles of Valmy [<=] and Neerwinden [<=], Charles-François Dumouriez [<=18th March] and Louis Philippe [3rd Duke of Orléans]1793 [I of France]1830 [1792 (6th November)<=>1830 (9th August)] defect to the Austrians. Dumouriez will end up as an advisor to the British government whilst Louis Philippe will spend 22 years in exile, touring northern Europe (1793-1796), the United States (1796-1800), and Britain (1800-1815). [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [6th April] The Committee of Public Safety: The Convention Nationale [1792 (20th September)] establishes a nine-member Comité de Salut Public [=>27th July] as a second revolutionary cabinet with broad supervisory and coordinating powers over its more specific committees and tribunals and powers of selection over the military. Amongst its members is Georges Danton [10th March<=>1794 (31st March)] and Jérôme Pétion de Villeneuve [1791 (16th November)<=>31st May]. The Comité will take most strategic decisions in advance of fuller debate in the Convention. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [24th April] Louis de Saint-Just [1792 (20th September)<=>27th July] submits a draft constitution to the Comité de Salut Public [<=24th April] and is appointed to a new five-man sub-
committee to work on a final version [=>24th June]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [3rd May] The Convention Nationale [=1792 (20th September)] decrees that within eight days all unauthorised females must be removed from army barracks and encampments. Four blanchisseurs [= laundrymaids] may be authorised per battalion. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [8th May] The marriage takes place of the widow Jane Ball [née Gould] [=1792 (15th November)] and Samuel Homfray [1792 (15th November)=>1794 (10th February)]. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: Note that Jane Gould's father had recently [=1792 (15th November)] changed his name from Gould to Morgan, becoming Sir Charles Gould-Morgan, 1st Baronet Morgan of Tredegar [=1797 (14th February)]. We have been unable to determine whether Jane also adopted that surname during the six months before she became Jane Homfray.

********** THE NIGHTMARE BEGINS **********

1793 [31st May-10th June] The Jacobin Dictatorship: Jean-Nicholas Pache [=15th February] and Pierre-Gaspard Chaumette [Wikipedia biography=>10th November] lead a mob of Sans-Culottes [=1792 (9th August)] to the Convention Nationale to arrest 29 senior Girondins, including Jérôme Pétion de Villeneuve [=6th April] and Jacques Brissot [1792 (20th September)]=>executed 31st October], thus removing all effective political opposition to the Jacobins [=1789 (4th July)] for the time being [=1794 (26th July)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE CONSTITUTION OF 1793 **********

1793 [24th June] The Convention Nationale [=1792 (20th September)] formally approves the final version of the Constitution drafted by the Comité de Salut Public [=24th April]. It gives a number of basic rights, including workers' rights of association, as well as guaranteeing (Article #122) each citizen the right to follow his/her own culte. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** MARXISM BY ANOTHER NAME **********

1793 [25th June] Jacques Roux [=1792 (9th August)] publishes a truly iconoclastic tract entitled "Manifeste des Enragés" [full text online], in which he demands the abolition of private property. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [5th July] Unable to expand his Lower Redbrook Ironworks [=1790] any further David Tanner [=1790] acquires additional capacity at Upper Redbrook, half a mile to the north. [THREAD = THE INDUSTRIAL REVOLUTION]

1793 [12th July-9th October] Counter-Revolution in Lyon: Following months of counter-revolutionary defiance by the Lyonnais the Convention Nationale [=1792 (20th September)] finally decrees the region to be outlaws and despatch a Republican army under François de Kellermann [=1792 (20th September)] to deal with them. Lyon is duly besieged and will fall on 9th October. Reprisal trials and executions continue through the winter. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [13th July] Jean-Paul Marat [=1792 (20th September)] is assassinated by a Girondist sympathiser angered by his journal's part in the fall of the Girondist movement. [THREAD = THE SHAPING OF THE MODERN WORLD]

1'ASIDE: Artistic devices similar to this will be deployed by Joseph Goebbels [=1921] in bringing the Nazis to power in the 1930s.
WAR ART: With his (1793) "Death of Marat", the Comité de Sûreté Générale's resident artist Jacques-Louis David [1792 (28th October)<=1794 (8th June)] produces an instant visual lament for his fellow Jacobin.

1793 [27th July] A number of Jacobin radicals, not least Maximilien Robespierre [1792 (20th September)<=5th September], Louis de Saint-Just [24th April<=10th October], and (another aristo turned citoyen) the politician Lazare, Comte de Carnot [1778<=23rd August] are co-opted onto the Comité de Salut Public [<=6th April]. Carnot proceeds to make an enduring name for himself when he is given the task of organising a "levée en masse" [= mass levy] to raise an extra 850,000 conscripts within a year [=23rd August]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [1st August] One Jean Houchard [Wikipedia biography] is put in charge of the forces stationed in Flanders on the border with the Austrian Netherlands. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [1st August] War in the Vendée [II - The Clamp-Down]: [...] Continued from 11th March] After several months of rebel success the Comité de Salut Public [<=6th April] puts Jean-Baptiste Carrier [Wikipedia biography] in charge of the "pacification" of the Vendée. He starts by deploying "colonnes infernales" [= "hell's columns"] to strike fear into the population at large while at the same time his main army attempts to bring the Royalists to battle [continues at 17th October ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1 ASIDE: This usually involved killing all at hand, men, women, and children alike. Many historians now assess the sufferings of the Vendéen people as a full-blown systematic genocide - see the case presented by Reynald Secher (Secher, 2003).

1793 [6th August] The French physician Philippe Pinel [Wikipedia biography] is appointed Medical Director at the Bicêtre Hospital, Paris, becoming responsible for some 4000 inmates, including 200 mental patients. He will be in post until 1795, during which period he starts to replace the unenlightened treatment regime with less mediaeval methods. He records his progress in his 1794 book "Memoir on Madness" [USNLM briefing]. [THREAD = WW1 PSYCHIATRY]

1793 [23rd August] The Levée en Masse: The Convention Nationale [<=1792 (20th September)] appoints Lazare, Comte de Carnot [27th July<=1795 (2nd November)] to raise 850,000 conscripts within a year. Remarkably he succeeds, relying on a merciless appeal to revolutionary loyalty as personified by "Brutus", "Liberty", and "Marianne" [<=1792 (28th October (ASIDES))], and combining this appeal with a meticulous administrative hierarchy for getting the central call out to the remotest hamlet. The philosophical argument to join up is compelling: now that France has redefined itself as a single republican community the welfare of the individual is no longer the prime consideration. As Carnot puts it: "From this moment until such time as its enemies shall have been driven from the soil of the Republic, all Frenchmen are in permanent requisition for the services of the armies". Carnot also takes his generals to task for allowing/encouraging/turning a blind eye to prostitution. [THREAD = THE WW1 ARMIES]

RESEARCH ISSUE - "TOTAL WAR": Future historians will assess Carnot's achievement here as highly significant in the history of human warfare because it was the first step towards what we now call "total war", that is to say, warfare between populations at large.

1793 [5th September] The Terror: The Convention Nationale [<=1792 (20th September)] calls for "Terror to be the order of the day". Maximilien Robespierre [27th July<=10th November] will promote the new rules with diligence and enthusiasm. [THREAD = THE WW1 ARMIES]
1793 [6th-8th September] **The Battle of Hondschoote**: This battle is fought as part of the Flanders Campaign of the First Coalition [<=1792 (20th April)] between a French army under Jean Houchard [1st August<=12th September] and Jean-Baptiste, 1st Comte Jourdan [Wikipedia biography=>1794 (24th June)] and a considerably smaller Coalition army under Prince Frederick of Hanover, Duke of York and Albany [Wikipedia biography=>1794 (18th May)] and Heinrich von Freytag [no convenient biography]. The outcome is a with-the-odds French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [12th-13th September] **The Battle of Menin**: This battle is fought as part of the Flanders Campaign of the First Coalition [<=1792 (20th April)] between a French army under ("brave and stupid") Jean Houchard [<=6th September] and a considerably smaller Dutch/Austrian coalition army under William Frederick, Prince of Orange [Wikipedia biography=>1794 (26th June)]. The outcome is a with-the-odds French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1\textsuperscript{ST} ASIDE: There exists a school of thought which holds that to be brave and stupid are the key qualities of a soldier.

\textbf{ASIDE - MENIN IN WW1:} Like a spider at the centre of its web Menin sits in the highway complex which interconnects Antwerp, Ostend, Bruges, Ghent, Ypres (14 miles away), Lille, and the channel ports. As such it was a major strategic waypoint in the original Schlieffen Plan [=1905], an anticlockwise encirclement movement in which "the last man on the right was expected to get his feet wet". In the event the war in north-western France degenerated into the "Race to the Sea" [=1914 (15th September)], during which the Germans based themselves around Menin to confront the Belgians and the British based around Ypres. This situation became fixed by the First Battle of Ypres [=1914 (8th October)], and Menin remained behind German lines until their final surrender in 1918. The well-known Menin Gate [=1927 (24th July)] at Ypres stands astride the old Ypres-Menin highway as it passes out through the city ramparts.


1793 [18th September-18th December] **The Siege of Toulon**: This siege is fought out as part of the Mediterranean Campaign of the First Coalition [<=1792 (20th April)] between a besieging French Republican army under Jean-François Carteaux [Wikipedia biography] and the French Monarchist/Coalition garrison under Sir Samuel Hood [1782 (25th January)<=1804 (5th May)]. The siege goes poorly until the aforementioned Napoléon Bonaparte [Napoléon I of France]\textsuperscript{1804} [1792 (20th April)<=1795 (5th October)] is put in charge of the siege artillery and, by the end of November, has the Coalition defences under heavy bombardment. The city eventually falls on 19th December. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [22nd September] **The "Feast of Brutus"**: Convinced that religion will always be the enemy of revolution, Joseph Fouché [Duc d'Otrante]\textsuperscript{1808} [11th March<=1794 (8th June)] promotes the removal of all Christian allusion in France's place names. Saint Tropez, for example, duly becomes Héracles. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [5th October] The Revolutionary Calendar: In an attempt to break its ties with the past and to give it a history of its own the Convention Nationale (<=1792 (20th September)) adopts plans for a "Calendrier Révolutionnaire" prepared by the mathematician Charles-Gilbert Romme [Wikipedia biography] and the poet Fabre d’Églantine (<=1790 (?7th April)). The main changes are (a) that there should be three ten-day weeks per month, (b) that every tenth day should be a day off, but should be named décadi so that there should be no Sundays, (c) that there should be ten hours a day, each of 100 minutes, each of 100 seconds, (d) that a five- or six-day 13th month named "Sans-Culottide" should maintain the solar calendar (e) that the months should be renamed to reflect the natural cycle of the seasons, and (f) that the years should start numbering again from one, with An 1 beginning 21st September 1792. The 5th October 1793 thus becomes Day #14 of Month #1 in An 2 [to convert any other date simply browse <French revolutionary calendar converter>]. In fact the decimal hours, minutes, and seconds will not catch on and will be abandoned in April 1795. [THREAD = THE SHAPING OF THE MODERN WORLD]

STUDENT EXERCISE: Using the French Revolutionary Calendar find out how many days between the 4th of Rainy and the 19th of Foggy the following year.

1793 [10th October] Saint-Just and the Army: The Convention Nationale (<=1792 (20th September)) puts Louis de Saint-Just (27th July<=1794 (19th February)) in charge of reorganising the revolutionary army. He spends the winter listening to rank-and-file grievances and pruning1 out deadwood in the higher echelons of command and replacing them with "roturiers" [= commoners, non-aristocrats]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1ASIDE: Sometimes with the guillotine, sometimes not.

1793 [16th October] Having finally been tried before the Tribunal Révolutionnaire (<=10th March) Archduchess Maria Antonia of Austria (21st January<= dies this day) is executed. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [17th October] War in the Vendée [III - The Battle of Cholet]: [...] Continued from 1st August] After several months of the clampdown, the Republican army under Jean Léchelle [Wikipedia biography] finally engages the Vendéen army under Louis d'Elbée (<=11th March) and Henri de la Rochejaquelin (<=11th March). The outcome is a crushing Vendéen defeat. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [10th November] The Festival of Reason: Convinced that the Catholic Church is one of the main counter-revolutionary drivers Jacques Hébert (1792 (9th August)<=5th(December) and Antoine-François Momoro [Wikipedia biography]=1794 (4th March)) promote a new and politically acceptable religion worshipping Reason, suitably deified. Across the country Catholic churches and cathedrals, including Notre Dame de Paris itself, are transformed into "Temples de la Raison", adorned with revolutionary iconography, eternal flames, statues of Greek philosophers, and even a "Goddess of Reason". These are then used to host an atheistic service devised by Pierre-Gaspard Chaumette (<=31st May). As the ex-bishop Jean Gobel [Wikipedia biography] puts it, there will henceforth be "no religion but Liberty". Meanwhile priests and nuns get married, bibles are burnt in the streets, church bells are recast for cannon, and church plate is sold off to benefit the Revolution. Not all revolutionaries are impressed, with Maximilien Robespierre (5th September<=1794 (17th May)) going so far as to describe them as "farcical" before setting out to do better [=>1794 (17th May)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [10th November] The former Mayor of the Commune de Paris Jean-Sylvain Bailly (<=1791 (16th November)) is hauled before the Tribunal Révolutionnaire (<=10th March) for
recidivism, sentenced to death, and sent to the Guillotine on 12th November. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [23rd November] The Second Partition of Poland: [... Continued from 1792 (18th May)] Having chosen not to fight to the bitter end in the Russo-Polish War [<=1792] a heavily coerced Polish Parliament votes to divide the country up between Russia (who get 97,000 square miles) and Prussia (who get 22,000 square miles) [continues at 1795 (24th October) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [28th-30th November] The Battle of Kaiserslautern: This battle is fought as part of the Rhine Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Lazare Hoche [Wikipedia biography] and a Prussian/Austrian army under Charles, Duke of Brunswick-Wolfenbüttel [<=1792 (20th September)], The outcome is a Prussian/Austrian victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [5th December] The "True Cordelier": Camille Desmoulins [1792 (10th August)<=1794 (4th March)] starts publishing Le Vieux Cordelier, a political periodical criticising recent revolutionary excesses and harking back nostalgically to the days when all revolutionaries agreed amongst themselves. To start with Desmoulins focuses his editorial on the far-left1 Hébertistes, followers of Jacques Hébert [16th November<=1794 (4th March)], but then turns his criticism (unwisely, in hindsight) onto the Comité de Salut Public [<=6th April]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1 ASIDE - THE FAR RIGHT AND FAR LEFT: The point about left-wing liberal policies is that as they get more and more revolutionary they become less and less liberal, ending up in the same extremist mind-set as the far right. The left-right metaphor in politics is therefore quite unhelpful at the two extremes.

1793 [22nd December] The Battle of Wörth/Fröschweiler: This battle is fought as part of the Rhine Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Lazare Hoche [22nd December<=1794 (21st August)] and an Austrian/Prussian/Bavarian/Hessian army under Dagobert von Wurmser [Wikipedia biography] and a Prussian/Austrian army under Friedrich von Hotze [Wikipedia biography]=>1799 (2nd March)]. The outcome is a hard-fought French victory. The battle is noteworthy in the present context for allowing the French to re-occupy Alsace. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [23rd December] The War in the Vendée [IV- The Battle of Saverney]: [... Continued from 17th October] This battle is fought as part of the War in the Vendée between a Republican army under Jean-Baptiste Kléber [Wikipedia biography] and François Westermann [Wikipedia biography] and the remnants of the Vendéen army. The outcome is a final crushing defeat of the Vendéens, with those not killed in battle being executed afterwards. [THREAD = THE SHAPING OF THE MODERN WORLD]

1793 [26th-29th December] The Battle of Wissembourg: This battle is fought as part of the Rhine Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Lazare Hoche [22nd December<=1794 (21st August)] and an Austrian/Prussian/Bavarian/Hessian army under Dagobert von Wurmser [Wikipedia biography] and a Prussian/Austrian army under Dagobert von Wurmser [Wikipedia biography] and an Austrian/Prussian/Bavarian/Hessian army under Dagobert von Wurmser [Wikipedia biography]. The outcome is a hard-fought French victory. The battle is noteworthy in the present context for allowing the French to re-occupy Alsace. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 The Llangrwyney-Clydach Vale Tramway: In order to connect his Glangrwyney Ironworks [<=1792] to the Brecknock and Abergavenny Canal [<=1793] Walter Watkins [1793<=1796] sponsors the construction of a tramway to, and wharfage facilities at, Gilwern. At around the same time, upon the retirement of its founders [<=1778] the Sirhowy [A] Ironworks [1778<=1799] is taken over by Matthew Monkhouse
1794 The French engineer Claude Chappe [Wikipedia biography] installs an "ocular telegraph", consisting of large pointers mounted on gantries, whose angular position sequentially codes each letter of the message to be sent [explanatory image]. Repeater stations are situated in direct line of sight every few miles, and at night lanterns are tied to the arms to maintain the service. The link between Paris to Toulon (475 miles) consists of 120 towers and boasts a transmission time of about 12 minutes. A longer one still, from Paris to Milan, will be under construction at the time of Chappe's early death in 1805. [THREAD = WW1 SIGNALLING AND TELECOMMUNICATIONS]

1794 William Murdoch [<=1784] demonstrates his steam carriage to his neighbour Richard Trevithick [Wikipedia biography] on 10th February. [THREAD = WW1 RAILWAYS]

1794 [10th February] The Glamorgan Canal (II - Opening): [Continued from 1790 (9th June)] After less than four years in the digging the new canal between Merthyr Tydfil and Cardiff is formally opened. Samuel Homfray [1793 (8th May)<=1799] invests £40,000 in the £100,000 project. The first half of the descent culminates in a crowded 15 locks down into "the Basin" at Abercynon, a stretch which is always very congested and tends in dry weather to be slow to refill [continues 1796 (26th April) ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

1794 [19th February] Louis de Saint-Just [1793 (10th February)<=26th July] is elected President of the Convention Nationale [=1792 (20th September)] and over the ensuing five months serves as the "Angel of Death", seeing off both the Hébertists [=13th March] and the Dantonists [=31st March] and generally wholeheartedly pursuing the Terror [=10th June]. He will be guillotined himself as part of the Thermidorian Reaction [=26th July]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [13th-24th March] The Hébertist Purge: Increasingly under attack by Camille Desmoulins' Vieux Cordelier [1793 (5th December)<=31st March], Jacques Hébert [1793 (5th December)<=executed 24th March], Antoine-François Momoro [1793 (10th November)<=executed 24th March], and numerous lesser followers are purged. [THREAD = THE SHAPING OF THE MODERN WORLD]


1794 [2nd April] The French military engineer Jean Coutelle [Wikipedia biography] forms the "Aerostiers" [="aviators"], the first French airforce. He starts with 25 men and a balloon named Entreprenant and specialises in tethered balloon applications such as battlefield observation. [THREAD = WW1 AVIATION]

1794 [24th-28th April] The Battle of Saorgio: This battle is fought as part of the Italian Campaign of the War of the First Coalition [=1792 (20th April)] between a French army under Pierre Dumerbion [Wikipedia biography] and an Austrian/Sardinian army under Joseph de Vins [Wikipedia biography]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]
1794 [28th April] The French Invasion of Ireland [I - The Planning Stage]: During the winter of 1793/1794, having been recruited as a secret agent by the French during a period in Paris, the Irish clergyman William Jackson [Wikipedia biography] acts as a go-between between Lazare Hoche [1795 (16th July)<=>1797 (22nd February)] and Irish dissidents such as Wolfe Tone [1791<=>1798 (21st June)]. Plans are eventually laid for an invasion of Ireland in 1796 [continues at 1796 (15th December) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [17th May] The Cult of the Supreme Being: Sponsored by Maximilien Robespierre [1793 (10th November)<=>10th June] the Convention Nationale [<=1792 (20th September)] adopts "Le Culte de l'Être Suprême" as the recommended (but not compulsory) state religion [continues at 8th June ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [18th May] The Battle of Tourcoing: This battle is fought as part of the Flanders Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Joseph Souham [Wikipedia biography] and Jean Moreau [Wikipedia biography=>1800] and a Coalition army under Prince Josias of Saxe-Coburg-Saalfeld [1793 (18th March)<=>26th June] and Prince Frederick of Hanover, Duke of York and Albany [1793 (6th September)<=>1799 (27th August)]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [23rd May] The Swansea Canal (I - Parliamentary Approval): The British Parliament approves the construction of a sixteen-and-a-half-mile canal to follow the line of the River Tawe all the way down its valley from Abercraf [pronounce "Abba+crave"] to Swansea Docks [continues 1798 (?7th October) ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

1794 [1st June] "The Glorious First of June": This naval battle is fought as part of the War of the First Coalition [=1792 (20th April)] between a British fleet under Richard Howe, 1st Earl Howe [=1790] and a French fleet under Louis Villaret de Joyeuse [Wikipedia biography]. The outcome is a convincing British victory. [THREAD = THE WW1 SURFACE NAVIES]

1794 [8th-10th June] The Festival of the Supreme Being: [... Continued from 17th May] Organised by Maximilien Robespierre [1793 (27th July)<=next entry] and Jacques-Louis David [1793 (13th July)<=1800 (14th June)] stage the inaugural festival of their new "religion". It is centred on a theatrical mountain erected in the Champs de Mars, Paris, and involves no little mock solemn merry-making. For his part, Joseph Fouché [Duc d'Otrante] [1793 (22nd September)<=1799 (12th July)] sees little of value in the whole affair. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** L'ATTRAPE-NIGAUDI **********

1794 [10th June] The Law of the Great Terror: In an attempt to speed up the execution of wrongdoers and enemies brought before the Tribunat Révolutionnaire [<=1793 (10th March)] Georges Couthon [Wikipedia biography=>27th July] and Maximilien Robespierre [preceding entry<=26th July] draft the "Loi de 22 Prairial" [= "Law of the 22nd of Prairial" [i.e., 10th June]; also informally as the "Law of the Great Terror"]. This new law prescribes only two judgements - innocence or execution - and removes the defendant's rights to counsel or the calling of witnesses. Couthon explains that the guilty have no right to counsel and the innocent have no need for it! The law also explicitly demands that every citizen spies on every other citizen, and immediately denounces any counter-revolutionary behaviour seen: failing to spy is itself declared to be counter-revolutionary. Ironically, both Couthon and Robespierre will fall foul of their own legislation and go the guillotine themselves six weeks later [=27th September]. [THREAD = THE SHAPING OF THE MODERN WORLD]
ASIDE: This was the title given to the French edition of Joseph Heller's (1961) novel "Catch 22". We use it here to indicate a specious illogicality [italicised above] which (like the Emperor's invisible suit) pleases all who wish to be pleased by it.

********** FIRST AIR-SUPPORTED BATTLE **********

1794 [26th June] The Battle of Fleurus: This battle is fought as part of the Austrian Netherlands operations of the War of the First Coalition [<=1792 (20th April)] between a French army under Jean-Baptiste, 1st Comte Jourdan [1793 (6th September)<=>1799 (2nd March)] and Jean-Baptiste Kléber [1793 (23rd December)<=>1799 (5th February)] and a Coalition army under Prince Josias of Saxe-Coburg-Saalfeld [<=18th May] and William Frederick, Prince of Orange [<=1793 (12th September)]. The outcome is a decisive French victory and the annexation of the Austrian Netherlands. The battle is noteworthy in the present context for the first ever deployment of an observation balloon for aerial reconnaissance. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 AVIATION]

1794 [12th July] Details for George Gould Morgan, born this day, are entered under his parents' wedding day [<=1791 (6th April)]. [THREAD = THE INDUSTRIAL REVOLUTION]

********** THE PROSECUTOR PROSECUTED **********

1794 [26th/27th/28th July] The Thermidorian Reaction: Maximilien Robespierre [10th June<=>executed 28th July 12th November] addresses the Convention Nationale [<=1792 (20th September)] and by careless oratory succeeds in uniting his enemies against him. The next day (27th) the hitherto silent majority in the Convention Nationale [<=1792 (20th September]] stages a purge of its own, arresting him, Louis de Saint-Just [19th February<=>executed 28th July], Georges Couthon [10th June<=>executed 28th July], and even the dreaded Public Prosecutor, Antoine Fouquier de Tinville [1793 (10th March)<=>executed 7th May 1795], who now all join the queue for the guillotine. Several hundred lesser Jacobins are hunted down and similarly disposed of over the coming weeks. Because the arrests take place on the "Ninth of Thermidor" in the Revolutionary Calendar [<=1793 (5th October)] this centrist backlash will become known as the "Thermidorian Reaction". [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [21st August] War in the Vendée [V - Hoche's Intervention]: [...] Continued from 1793 (23rd December) Lazare Hoche [1793 (26th December)<=>1795 (16th May)] is put in charge of the Republican pacification of the Vendée. He continues the hard-line mapping up of the remaining resistance and within six months the region is dead quiet [continues at 1795 (28th June) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [3rd September] Jean-Baptiste Carrier [1793 (1st August)<=>executed 16th December] is arrested and guillotined for his part in the Vendée genocide. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [12th November] Having lost all influence since the death of Maximilien Robespierre [<=26th July] the Club des Jacobins [<=1789 (4th July)] is disbanded and the few surviving members stay well out of sight. [THREAD = THE SHAPING OF THE MODERN WORLD]

1794 [late in the year] The Monmouthshire Canal [II - As Initially Opened]: The two relatively level stretches of the Monmouthshire Canal [1793<=>1796], that is to say the eastern arm from Pontnewynydd to Monmouth and the western arm from Rogerstone to Crumlin, are opened. Effort now focuses on completing the "Cefn flight" [=>1799 (?7th April)], a 14-lock canal staircase ascending from Newport to Rogerstone. [THREAD = THE INDUSTRIAL REVOLUTION]
1795 **Philippe Pinel** [1793<=1798] leaves the **Bicêtre Hospital** to take up the post of Medical Director at the **Salpêtrière Hospital** [<=1792], where he will continue to promote the enlightened treatment of mental illness. [THREAD = WW1 PSYCHIATRY]

1795 A steam-powered pumping station is erected on the River Taff at Radyr Weir, just north of Cardiff, to provide water to the **Melingriffith Tinplating Works** [1786<=1805]. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** The Melingriffith pumping station will be restored between 1974 and 1989 as an industrial heritage project by **Risca Industrial Museum** [website] and the **Inland Waterways Association** [website].

********** HOW TO TELL IRON FROM STEEL  **********

1795 [1st January] The British physician-chemist **George Pearson** [Wikipedia biography] publishes a paper on the metallurgy of "Wootz steel", a high performance blade-makers' steel imported from India, which he prefices with a detailed summary of the known differences between iron and European steel ...

"I. Wrought or forged iron I understand to be that which possesses the following properties: a. It is malleable and ductile in every temperature; and the more readily the higher the temperature. [...] c. It cannot be melted, without addition; but it may be rendered quite soft by fire, and in that soft state it is very tough and malleable. d. It can be easily reduced to filings. e. By being surrounded with carbon for a sufficient length of time, at a due temperature, it becomes steel. [...] g. By solution in sulphuric and other acids it affords a residue of less than 1/300 of its weight of carbon; and if it could be obtained quite pure there is no good reason to suppose there would be any residue at all. II. Steel I understand to be that which possesses the following properties: a. It is already, or may be rendered, so hard by immersion, when ignited, in a cold medium, as to be unmalleable in the cold; to be brittle, and to perfectly resist the file; as to cut glass, and afford sparks of fire on collision with flint. b. In its hardened state it may be rendered softer in various degrees (so as to be malleable and ductile in the cold) by ignition and cooling very gradually. [...] d. Whether it has been hardened or not it is malleable when ignited to certain degrees, but when ignited to be white perfectly pure steel is scarcely malleable [...] f. Much thinner and more elastic plates can be made of it by hammering than of iron. g. The specific gravity of steel which has been melted and hammered is in general greater than that of forged iron. [...] k. By repeated ignition in a rather open vessel, and by hammering it becomes wrought or forged iron. [...] m. It is more sonorous than forged iron. n. On quenching in cold water, when ignited, it retains about 2/3 of the extension produced by ignition, whereas wrought iron so treated returns to nearly its former magnitude" (pp337-339).

Of Wootz steel in particular he concludes from its observed properties - which are sometimes those of iron, sometimes of steel, and sometimes of neither - that it must contain something (a) other than iron and carbon which (b) leaves no solid residue. He suggests oxygen. [THREAD = THE INDUSTRIAL REVOLUTION]

1795 [19th January] **The Batavian Republic, 1795-1806:** Having been occupied by the French after the Battle of Fleurus [<=1794], and with its Royal Family fled into exile in Britain, the French now help like-minded Netherlanders to establish a Revolutionary Republic of their own.

**ASIDE - ROMANTIC NATIONALISM AT WORK:** In a fine early example of Romantic Nationalism [<=1777 (1st April)] at work the French suggest that the Dutch resurrect the name **Batavi**, the name of the Germanic tribespeople who had lived around the Rhine delta in Roman times.

This state of affairs will maintain until the establishment of the French-promoted Kingdom of Holland [=1806 (5th June)]. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 ROMANTIC NATIONALISM]


1795 [1st April] One John Jones [no convenient biography] leads a 500-man bread riot in Denbigh, North Wales. [THREAD = THE INDUSTRIAL REVOLUTION]

1795 [5th April-28th August] The Treaties of Basel and the "Armed Neutrality": This series of three treaties takes Prussia (5th April), Spain (22nd July), and Hesse-Kassel (28th August) out of the First Coalition. By dividing its enemies in this way France consolidates its position as the dominant Western European power. Prussia will remain on the side-lines of the Napoleonic Wars until the formation of the Fourth Coalition [=>1806]. During this time she will maintain a state of "Armed Neutrality", that is to say, she will be expected to police the northern German Electorates on behalf of the Holy Roman Empire. As it will turn out, France will use this arrangement to her own advantage when she has Prussia occupy Hanover [=>1801 (3rd February)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1795 [??th July] At Drumcree, County Armagh, an Irish Protestant clergyman named Devine [no convenient biography] preaches the iniquities of Catholicism and harks minds back to the Protestant victory at the Battle of the Boyne [<=1690 (1st July)]. Duly inflamed, his congregation trash a number of Catholic targets on their way home and murder two of those who dare to stand in their way. [THREAD = THE SHAPING OF THE MODERN WORLD]

1795 [28th June-21st July] The War in the Vendée [VI - The Quiberon Expedition]: [...] Continued from 1794 (21st August) This short campaign takes place as part of the Vendéen Campaign of the War of the First Coalition [<=1792 (20th April)] between an invading Counter- Revolutionary French/British army under Joseph de Puisaye [Wikipedia biography] and a Republican army under Lazare Hoche [1794 (21st August)<=1796 (15th December)]. The Counter- Revolutionaries are attempting to resurrect the Vendée - quiet since its pacification in 1793 - as a Royalist stronghold, but are dogged by poor communications and unclear tactical objectives. As at the Battle of Savenay two years previously [<=1793 (23rd December)] those Royalists not killed in the fighting are simply (tried and) executed after surrendering. [THREAD = THE SHAPING OF THE MODERN WORLD]

1795 [7th August] The Battle of Muizenberg: This battle takes place near Muizenberg, Dutch Cape Colony [modern South Africa], as part of the French Revolutionary War [<=1792 (20th April)] between a British amphibious assault fleet under George Elphinstone [Wikipedia biography] and the Dutch garrison under Robert Gordon [Wikipedia biography]. The outcome is that Dutch Cape Colony is successfully taken under British "protection" [i.e., from the French], where it will remain until after the Boer War a century later. [=>1872] [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE CONSTITUTION OF 1795 **********

1795 [22nd August] The Directory [I - Formation]: The Convention Nationale [<=1792 (20th September)] formally approves a new republican constitution offering three levels of control, namely a 500-member house of representatives for forming laws, above that a 250-member senate for executing policy, and above that a five-person "Directoire
The Battle of the Diamond: This civilian skirmish is fought at the Diamond Crossroads, near Loughhall, County Armagh, as part of ongoing Irish sectarian conflict between a crowd of Protestant paramilitaries known as the "Peep-o’-Day Boys" and a crowd of Catholic paramilitaries known as the "Defenders". The outcome is a nominal Protestant victory. The engagement is noteworthy in the present context because a faction within the Peep-o’-Day Boys now forms up as an underground politico-religious society known as the "Orange Order", which, in "a persecution conceived in the bitterness of bigotry", immediately sets about driving Catholics out of County Armagh.

********** THE "WHIFF OF GRAPESHOT" **********

The 13 Vendémiere Uprising: Napoléon Bonaparte [Napoléon I of France] uses artillery to disperse a Royalist column threatening Paris with a few rounds of canister shot.

The Directoire [II - Implementation]: [... Continued from 22nd August] The required elections having taken place, the Directoire Exécutif formally takes over as the government of France, and will remain in post until replaced by the Consulate four years later [=1799 (9th November)]. One of the five inaugural directors is Lazare, Comte de Carnot [=1793 (23rd August)].

The Third Partition of Poland: [... Continued from 1792] Stanisław Poniatowski of Poland [=1792 (18th May)] formally abdicates, and the remnants of the Polish-Lithuanian Commonwealth are divided up between Russia, Prussia, and Austria [continues 1807 (Duchy of Warsaw)…].

Upon the death of John Capel Hanbury [=1784] his interests in the Pontypool Ironworks [=1784] pass to his younger brother Capel Hanbury[-Leigh].

Jeremiah Homfray [=1793] now sells his remaining interest in the Ebbw Vale Ironworks [=1793] to the Harford and Partridge Partnership [=1793], who promptly set about adding three new blast furnaces. Around the same time Walter Watkins [=1794] sells the Clydach Vale Ironworks [=1792] to said partnership, the Nantyglo Ironworks [1792<=>1811] is closed as uneconomical, and one Edward Jones [no convenient biography] leases land from Sir Charles Gould-Morgan, 1st Baronet Morgan of Tredegar [1793 (8th May)<=>1797 (14th February)] and starts to develop coal workings at Risca-Waunfawr [map, etc.], about eight miles north of Newport. Jones uses the newly opened Cwm carn arm of the Monmouthshire Canal [1794<=>1799 (??th April)] to get his output to market.

The British clergyman and amateur naval engineer Lord George Murray [Wikipedia biography] invents the shutter telegraph [explanatory image]. This consists of a large shielded lantern revealed by six spatially separated slots. Different permutations of
slots are predefined as representing different alpha-numeric characters and each character is "sent" by merely opening the slots appropriate to it. The lights are "read" by observers down the line equipped with telescopes, and then retransmitted to "repeater stations" further down the line until the final destination is reached. [THREAD = WWI SIGNALLING AND TELECOMMUNICATIONS]

**ASIDE:** Fifteen hilltop signal stations were set up between London and Deal (70 miles), and the first message was passed on 27th January 1796, taking two minutes to send and acknowledge. A 10-station link was then established between London and Portsmouth (65 miles), and a 22-station extension from Portsmouth to Plymouth was operational in 1806 (which, incidentally, is why there are still so many Telegraph Hills in the south of England). The send-and-acknowledge time to Plymouth was three minutes. In the end, however, the Royal Navy remained unimpressed with the trials of Murray's shutter telegraph, and simply copied the French system [=1794 (Claude Chappe)]. Admiral Sir Home Popham gave the Chappe system the name "semaphore" (Greek *sema* - "sign", plus *pherein* - "to carry"), and an eight-station link (the two termini, plus six intermediates) opened between London and Chatham Dockyard on 3rd July 1816.

********** BLITZKRIEG IN PIEDMONT **********

1796 (2nd March) **Napoléon Bonaparte [Napoléon I of France]**[1804] [1795 (5th October)<=5th August] is appointed Commander-in-Chief of the French forces in Italy and has them ready to go on the offensive in Piedmont - seriously outnumbered - by the end of the month, and acclaimed as victors a month after that [=1796 (28th April)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1796 (26th April) **The Glamorgan Canal (III - Extension):** The British Parliament approves a short extension of the canal as originally built [=1794 (10th February)] to connect also to a new sea lock at Cardiff. It will be ready in June 1798. [THREAD = THE INDUSTRIAL REVOLUTION]

1796 (28th April) **The Armistice of Cherasco:** This negotiated ceasefire marks the end of the French invasion of Piedmont [=2nd March], and the withdrawal of that state from the First Coalition. [THREAD = THE SHAPING OF THE MODERN WORLD]

1796 (12th July) **The Orangemen March:** To commemorate the anniversary of the Protestant victory in the Battle of the Boyne [=1690 (1st July)] the newly formed Orange Order [1795 (21st September)<=1816 (7th October)] stages celebratory marches[1] in Portadown and Lurgan, County Armagh, and Waringstown, County Down. [THREAD = THE SHAPING OF THE MODERN WORLD]

[1] **ASIDE:** Such marches continue to the present day and remain in the front line of the Protestant-Catholic divisions in Northern Ireland [Wikipedia images and factsheet].

1796 (11th June) Upon the death of the brewery tycoon Samuel Whitbread [Wikipedia biography] his estate is reportedly worth a million pounds. [THREAD = THE INDUSTRIAL REVOLUTION]

1796 (3rd August) Primary resources record that at this date **George Coker Fox's [<=1792]** Cwm-y-Felin Ironworks [=1792<=1841] is engaged converting pig iron into iron castings. There are now two "immense" blast furnaces, blown by a Boulton and Watt steam engine. Rees (1974 online [http://himedo.net/TheHopkinThomasProject/TimeLine/Wales/NeathAbbeyIronworks/Articles/ElisJenkins/ElisJenkins.htm]) offers a number of detailed drawings if interested. [THREAD = THE INDUSTRIAL REVOLUTION]

1796 (5th August) **The Battle of Castiglione:** This battle is fought as part of the Italian Campaign of the War of the First Coalition [=1792 (20th April)] between a French army under Napoléon Bonaparte [Napoléon I of France][1804] [2nd March<=4th September] and
Pierre Augereau [Wikipedia biography=>1797 (4th September)] and an Austrian army under Dagobert von Wurmser [<=1793 (26th December)]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1796 [4th September] The Battle of Rovereto: This battle is fought as part of the Italian Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Napoléon Bonaparte [Napoléon I of France] and an Austrian army under Paul Davidovich [Wikipedia biography]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1796 (October) James Gillray’s [1792 (20th April)<=>1803 (18th May [ASIDE])] latest political cartoon goes by the self-explanatory title “Promis’d Horrors of the French Invasion” [view it now], a graphically expressed Conservative criticism of the centrist (such as it was in the 18th Century) of the Pitt administration [Wikipedia factsheet]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]]

1796 (15th-17th November) The Battle of Arcole: This battle is fought as part of the Italian Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Napoléon Bonaparte [Napoléon I of France] and an Austrian army under Joseph Alvinczi [Wikipedia biography] [1797 (14th January)]. The outcome is a French victory, followed by the seizure of Venice. [THREAD = THE SHAPING OF THE MODERN WORLD]

1796 (17th November) Upon the death of Catherine II (the Great) of Russia [<=1788] her titles pass to her son as Paul I of Russia [Wikipedia biography] [1801 (11th March)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1796 (15th December) The French Invasion of Ireland [II - The Failed Invasion]: [...] Continued from 1794 (28th April)] Following the initial contacts set up two years previously, Lazare Hoche [1795 (28th June)<=>1797 (22nd February)] now sets sail with a 44-ship invasion fleet carrying 15,000 men, intending to land in Bantry Bay, Ireland, and there support an Irish rebellion. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE PHANTASMAGORIA IS BORN **********

1797 Belief Systems [XXII - Superstition, Witchcraft, and Magic ("Robertson")] [Continued from 1784 (8th September)] Having seen and been impressed by the performances of Philidor [<=1789], the Belgian inventor Étienne-Gaspard Robert ["Robertson"] [stagename Wikipedia biography=1831] turns showman and develops his own magic-lantern show, cleverly marketed as the "phantasmagoria" [caution when browsing - the word has recently been r-copyrighted as horror movie and computer game, and is now heavily merchandised]. Robertson will patent his improved projector as the "Fantoscope" [sub-thread continues at 1818 (3rd February) ...]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1797 One Thomas Teague [no convenient biography] opens a coke-fired blast furnace at Cinderford [map, etc.], in the Forest of Dean. In the event the works will have only a short life because local coal proves more expensive that that which is available to the South Wales ironworks.[THREAD = THE INDUSTRIAL REVOLUTION]

1797 The French military physician Dominique Larrey [Wikipedia biography] is appointed Surgeon-in-Chief to the French Army, a position he will retain until the Battle of Waterloo [=>1815 (18th June)]. During his time in charge he will fully modernise the field medical and surgical services available to the French military establishment, introducing such features as the rapid evacuation of casualties, triage, and mobile field hospitals.[THREAD = WW1 MILITARY MEDICINE]
1797 Now a mines engineer, Richard Trevithick [1794<=1803] experiments with high pressure improvements to the sort of seriously inefficient steam engines of the Newcomen type [<=1712] used in the mines. [THREAD = THE INDUSTRIAL REVOLUTION]

1797 [14th-15th January] The Battle of Rivoli: This battle is fought as part of the Italian Campaign of the War of the First Coalition [<=1792 (20th April)] between a French army under Napoléon Bonaparte [Napoléon I of France] [1796 (15th November)<=1797 (15th November)] and a markedly larger Austrian army under Joseph Alvinczi [<=1796 (15th November)]. The outcome is an against-the-odds French victory with heavily disproportionate Austrian casualties. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [14th February] The death occurs of Jane Gould [née Morgan] [<=1792 (25th June)]. Her surviving spouse, Sir Charles Gould-Morgan, 1st Baronet Morgan of Tredegar [1796<=1801] now holds the Tredegar Estates [1792 (25th June)<=1799] in his own right. [THREAD = THE INDUSTRIAL REVOLUTION]

1797 [14th February] The Second Battle of Cape St. Vincent: This naval battle is fought as part of the French Revolutionary Wars [<=1792 (20th April)] between a British fleet under Sir John Jervis [Wikipedia biography] and a Spanish fleet twice its size but woefully inexperienced under Don José de Córdoba y Ramos [Wikipedia biography]. The outcome is an historically famous British victory. Horatio Nelson [1st Viscount Nelson] [1796 (15th November)<=1798] is one of Jervis' squadron commodores. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [22nd-24th February] The Battle of Fishguard: This battle is fought as part of the War of the First Coalition [<=1792 (20th April)] between a small French invasion army under the Irish-American mercenary William Tate [Wikipedia biography] and a hastily assembled British defence force under John Campbell, 1st Baron Cawdor [Wikipedia biography]. Conceived strategically by Lazare Hoche [1796 (15th December)<=1797 (19th September)], the invasion is woefully under-resourced and poorly led, and the outcome is a British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [16th April-27th December] The 1797 Mutinies: Protests about pay and conditions in the Royal Navy lead to mutinies in Britain's Channel Fleet at Spithead, the Nore anchorage, and other locations. The Admiralty makes enough token concessions (and hangs enough of the ringleaders of the mutiny) to restore discipline. [THREADS = THE INDUSTRIAL REVOLUTION and THE WW1 SURFACE NAVIES]

1797 [17th April] The Treaty of Leoben: Diplomats from France and the Austrian Empire reach a preliminary resolution of the War of the First Coalition [<=1792 (20th April)] which will now be fleshed out into a full peace treaty [=1797 (17th October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** BONAPARTE MAKES HIS FIRST MOVE **********

1797 [4th September] The Coup of 18th Fructidor: With things going well militarily, and with the War of the First Coalition [<=1792 (20th April)] all over bar the shouting, this military coup d'état is an attempt by right-wing Directors to counteract recent electoral advances by restorationists led by one Jean-Charles Pichegru [Wikipedia biography] in both the General Assembly and the Senate. The key personality is Pierre Augereau [<=5th August], representing the political ambitions of Napoléon Bonaparte [Napoléon I of France] [1796 (15th November)<=>1798 (19th May)]. Carrying (possibly contrived) evidence of Pichegru's monarchist sympathies Augereau has his troops storm the Tuileries Palace, exiling or incarcerating Pichegru and hundreds of followers. The coup results in a new
form of post-Jacobin ascetic revolutionary zeal being imposed, that of Bonaparte. A further coup will take place two years later [1799 (9th November)] in order to consolidate the take-over. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [11th October] The Battle of Camperdown: This naval battle is fought as part of the War of the First Coalition [<=1792 (20th April)] between a British fleet under Adam Duncan, 1st Viscount Duncan [Wikipedia biography] and a Batavian fleet under Jan de Winter [Wikipedia biography]. The outcome is a crushing British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [17th October] The Treaty of Campo Formio: [See firstly <=1792 (20th April)] This treaty between France and the Austrian Empire brings the War of the First Coalition [<=1792 (20th April)] to an end. In the present context the main point of agreement is that the Austrians should cede the Austrian Netherlands to France. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [16th November] Upon the death of Frederick William II of Prussia [=1790] his son ascends the Prussian throne as Frederick William III [Wikipedia biography] [=1806 (1st October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1797 [20th November] The first issue of George Canning's [=1792 (20th April)] new weekly tub-thumper, the Anti-Jacobin [ditto], is published. Its professed intent is "to set the mind of the people right upon every subject", and to increase its influence Canning commissions a series of supporting satirical cartoons from James Gillray [1796 (October) <=1803 (18th May)]. [THREAD = THE BATTLE FOR HEARTS AND MINDS]

1798 The Welsh Food Riots, 1798-1801: Inspired by social and industrial unrest elsewhere in Britain and in France, food riots start to take place in Wales. [THREAD = THE INDUSTRIAL REVOLUTION]

1798 James Teague [no convenient biography] [=1808] opens a coke-fired blast furnace at Whitecliff [map, etc.] [=1808], just outside Coleford, in the Forest of Dean. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: The Whitecliff site is nowadays part of the Dean Heritage open-air museum [website].

1798 In the light of his experiences at the Salpêtrière Hospital, Philippe Pinel [1795<=1801] identifies five basic categories of mental illness, namely (1) Melancholia, (2) Mania without Delirium (a.k.a. "folie raisonnante"), (3) Mania with Delirium, (4) Dementia, and (5) Idiotism. [THREAD = WW1 PSYCHIATRY]

********** AN EARLY CASE OF SURVIVOR SYNDROME **********

1798 Having read Shelvocke's account of the Speedwell expedition [=1719], the British poets William Wordsworth [Wikipedia biography] and Samuel Taylor Coleridge [Wikipedia biography] discuss the poetic opportunity in the tale of Simon Hatley's albatross. The outcome is Coleridge's poem "The Rime of the Ancient Mariner", in which the central character unwisely kills an albatross and his ship is punished by being becalmed. The crew hang the dead bird around his neck to remind him of his sins, but slowly they all die of thirst. He, however, is doomed to live on as their ghosts return to haunt him for his rashness. Wordsworth describes the Mariner's torment as a "spectral persecution". [THREAD = POST-TRAUMATIC STRESS DISORDER]

WAR POETRY: The WW1 poet David Jones [=1937] will draw on this legend at three places in his "In Parenthesis". In the first reference he uses line 236 of the poem - "The many men, so beautiful" - as his Part 1 title (In Parenthesis, p1). The significance of this allusion
is that both Jones and the Mariner are cursed to speak for dead men, Jones for the dead of the 15th Battalion, Royal Welch Fusiliers, and the Mariner for his dead shipmates; both are prime examples of survivor syndrome and will be discussed as such in due course. The second reference is hidden away toward the end of the work when Jones' hero, having been wounded in the leg, finds it hard to crawl to safety with his Lee-Enfield round his neck and decides to abandon it [potentially a serious military offence]. This is how he phrases it ...

"You've known her hot and cold. You would choose her from among many. You know her by her bias, and by her exact error at 300, and by the deep scar at the small, by the fair flaw in the grain, above the lower sling swivel - but leave it under the oak. Slung so, it swings its full weight. With you going blindly on all paws, it swings its whole length, to hang at your bowed neck like the Mariner's white oblation" (In Parenthesis, p184).

The third reference is in Part 3 of the work, where Jones develops Coleridge's theme of being becalmed and surrounded by "creeping things"; and in the trenches of WW1 the creeping things are all too real ...

"And the deepened stillness as a calm, cast over us - a potent influence over us and him - dead-calm for this Sargasso dank, and for the creeping things. You can hear the silence of it: you can hear the rat of no-man's-land rut-out intricacies, weasel-out his patient workings, scrub, scrub, ssccrub [...] You can hear his carrying-parties rustle our corruptions through the night-weeds - contest the choicest morsels in his tiny conduits, bead-eyed feast on us; by a rule of his nature, at night - feast on the broken of us" (In Parenthesis, pp53-54).

TELLING IT LIKE IT IS - RATS, CROWS, ETC.: "His" above means the rats, and the plain fact is that rats are well-fed on an uncleared battlefield. As Jones puts it, they "feast on us" when we are "broken". It is in their nature to eat carrion, and men's bodies - dead (or simply incapacitated [!]) - make excellent carrion. Flies are even more ubiquitous on a battlefield than are rats, and the sound of maggots consuming a week old corpse is reportedly like the gentle rustling of silk. And even more numerous than flies, but making less noise, are bacteria, whose remorseless onslaught is responsible for the sickening smell of death reported in so many WW1 writings.

1798 [12th April] The Helvetic Republic, 1795-1806: Having overrun them in a surprise invasion the French now force a Revolutionary Republic upon the Swiss (just as they had done with the Dutch three years previously [<=1795 (19th January)]).

ASIDE - ROMANTIC NATIONALISM AT WORK: In another fine example of Romantic Nationalism [<=1777 (1st April)] the French suggest that the Swiss resurrect the name Helvetii, the name of the Germanic tribespeople who had lived south of the Upper Rhine in Roman times.

This state of affairs will maintain until the re-establishment of the separate Cantons [=>1803 (19th February)]. [THREADS = THE SHAPING OF WW1 EUROPE and WW1 ROMANTIC NATIONALISM]

1798 [19th May] Bonaparte's Egyptian Campaign [I - Early Days]: Napoléon Bonaparte [Napoléon I of France] [1797 (4th September)<=22nd October] sets sail with a 40,000-man army in 400 troopships from Toulon en route for Alexandria, Egypt, with a view to turning Suez into a forward base for operations against the British in India [continues 1st July ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1798 [24th May] The Irish Rebellion [I - The Initial Uprising]: Following the abortive French invasion 18 months previously [<=1796 (15th December)] and angered by a recent British clamp-down on the dissident Society of the United Irishmen [<=1791 (7th October)] campaigners for Irish independence stage an uprising. Many local atrocities are perpetrated by all concerned, and a large-scale massacre at Gibbet Rath on 29th May
particular inflames the situation. The Commander-in-Chief of the British forces in Ireland is Gerard Lake [Wikipedia biography], but he will be replaced on 13th June by Charles, Earl Cornwallis [1792<=1799 (22nd January)] [continues at 21st June ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**1798** [29th May] The Gibbet Rath Massacre: This massacre of some 300 armed-but-surrendering Irish rebels takes place at the hands of a British column under Sir James Duff [Wikipedia biography]. Both sides accuse the other of firing first. [THREAD = THE SHAPING OF THE MODERN WORLD]

**1798** [21st June] The Irish Rebellion [II - The Battle of Vinegar Hill]: [... Continued from 24th May] This battle is fought between a British army under Gerard Lake [<=24th May] and the main Irish rebel army in County Wexford. The outcome is a British victory, but incomplete in that the main body of the rebels escapes in reasonably good order. Under pressure from continuing police actions against them, the United Irishmen now send urgently to their leader, Wolfe Tone [1794 (28th April)<=22nd August], presently seeking aid on their behalf in France [continues at 22nd August ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**1798** [1st/20th July] Bonaparte's Egyptian Campaign [II - The Battle of the Pyramids]: [... Continued from 19th May] The French begin offloading their army in the harbour at Alexandria on 1st July, and by 20th July have advanced inland to Cairo. Here they inflict a major defeat in the "Battle of the Pyramids" against Egyptian forces under Murad Bey [Wikipedia biography]. The campaign is noteworthy in the present context for the effectiveness of the French army's house propaganda news-sheet, Courrier d'Égypte, published between 29th August 1798 and 20th June 1801 [continues at 1st August ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**1798** [1st August] The War of the Second Coalition, 1798-1802: This war is fought as part of the broader French Revolutionary Wars [<=1792 (20th April)] between France and a coalition of nations including Austria, Britain, Naples, Ottoman Empire, the Papal States, Portugal, Russia (until 1800), and Sweden. Here are the main events ...

Bonaparte's Egyptian Campaign, 1798-1801; The Battle of the Nile, 1798; The Den Helder Expedition, 1799; The Battle of Alkmaar/Egmont-ap-Zee, 1799; The Rhine Campaign, 1799; The Battle of Marengo, 1800; The Battle of Hohenlinden, 1800

The war will end with the Treaty of Luneville [=>1801] and the Treaty of Amiens [=>1802]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**1798** [1st-3rd August] Bonaparte's Egyptian Campaign [III - The Battle of the Nile]: [... Continued from 1st/20th July] This naval battle is the opening event of the War of the Second Coalition [ preceding entry] between a British fleet under Horatio Nelson [1st Viscount Nelson] [1797<=1801 (2nd April)] and a French fleet under François-Paul Brueys d'Aigalliers [Wikipedia biography] [dies this day]. The French fleet is presently at anchor in a defensive arc across Abu Qir/Aboukir Bay, 20 miles east of Alexandria, and Nelson, having spent weeks tracking them down, has to destroy as many of their ships as possible so that the French expeditionary army will be cut off. The battle goes disastrously for the French throughout and they lose 11 of their 13 capital ships (2 sunk, 9 taken as prizes) [continues at 22nd October ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**1798** [12th-22nd August] The Irish Rebellion [III - The French Landings]: [... Continued from 21st June] This three-pronged sea-borne French/United Irish expedition attempts to land
some 5000\(^1\) French regulars/United Irish irregulars under Jean Humbert [Wikipedia biography] and Wolfe Tone [21st June <=> prison suicide 19th November] in Ireland, to form the nucleus of a popular uprising against British rule. The first convoy, that with Tone on board, is intercepted on 12th March and Tone is captured. The second convoy is dispersed by bad weather. The third - Humbert's - succeeds in disembarking 1000 troops at Killala Bay, County Mayo, and is (just about) dealt with by Lake and Cornwallis [continues at 1799 (22nd January) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

\(^1\) **ASIDE:** This is only about one third of the forces available to the organisers of the Hoche Invasion two years previously [<=1796 (15th December)] because the French are presently heavily committed elsewhere.

1798 [22nd October] Bonaparte's Egyptian Campaign [IV - The Battle for Hearts and Minds]: [... Continued from 1st August] Having been stranded by the loss of his entire battle-fleet at the Battle of the Nile [<=1st August] Napoléon Bonaparte [Napoléon I of France]\(^{1804}\) [19th May <=> 1799 (5th February)] sets out to persuade the Egyptians that he has come to liberate them from their Ottoman oppressors and that he will respect their religion. On 22nd October Cairo rises in revolt against him and he responds with his signature ruthlessness [continues at 1799 (5th February) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1798 [??th October] The Swansea Canal [II - Open for Business]: The new Swansea Canal [1794 (1st June) <=> 1873 (31st January)] opens for traffic. [THREAD = THE INDUSTRIAL REVOLUTION]

1799 Having prospered at the Penydarren Ironworks [1794 <=> 18th January] Samuel Homfray [1794 (10th February) <=> 1803] and Richard Fothergill I [<=1794] set up a second ironworks - herein codenamed as the Sirhowy [B] Ironworks - some two miles south of the existing Sirhowy [A] Ironworks [<=1794], on land leased from his father-in-law Sir Charles Gould-Morgan, 1st Baronet Tredegar [1797 (14th February) <=> 1806 (6th December)]. Then as a town grows up to service the works Homfray insists that it is named Tredegar, after Sir Charles' Tredegar Estates [1797 (14th February) <=> 1802] 24 miles down the valley at Newport. In 1800 the new works itself will likewise be named the Tredegar Iron Company. Meanwhile the Blaenavon Ironworks [1790 <=> 1810] is employing some 350 men and producing 7846 tons per annum. [THREAD = THE INDUSTRIAL REVOLUTION]

1799 The German infantry commander Johann Yorck von Wartenburg [Wikipedia biography] [=1807] trains a light infantry regiment suitably equipped for skirmishing. [THREAD = THE WW1 ARMIES]

**RESEARCH ISSUE - THE BIG THING ABOUT SKIRMISHING:** We have already side-noted on several occasions the difference between formal battle order and a skirmish line [e.g., 1781 (17th January ASIDE)]. The one involves tightly coordinated group movement in the time-honoured tradition set down by the Greek phalanx, the Roman legion, and the Spanish Tercio; the other involves loosely coordinated section-by-section movements from cover to cover with well-targeted offensive rifle fire. The two systems both have distinct weaknesses - formal order can be a suicidally "large slow target" when used against well-organised defensive infantry and artillery, whilst loose order is difficult to command at company level and below. The **issue is crucially important to students of WW1 because Kitchener's New Army was officially banned from advancing in loose order because it was deemed too inexperienced to profit therefrom, and this could well be why its most famous battles (not least the Battle of the Somme [<=1916 (1st July)]) were as costly as they were. Research data are still being accumulated and we shall be returning to this issue on a number of occasions.
1799 (18th January) The Merthyr Tramway [I - Construction]: Construction work begins on the Merthyr Tramway [Wikipedia article=>1802], a nine-and-a-half mile horse-drawn tramway between the works at Merthyr Tydfil and a transfer dock on the Glamorgan Canal [<=1796 (26th April)] at Abercynon, thus by-passing the problem of congestion in the locks north of Abercynon [<=1794 (10th February)]. The project is funded by the Penydarren Ironworks [<=1799], the Dowlais Ironworks [1793<=1807], and the Plymouth Ironworks [1786<=1818] to help them jointly complete with the Cyfarthfa Ironworks [1793<=1801], who have first claim to capacity on the canal [continues at 1802 ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

1799 (22nd January) The Irish Rebellion [IV - The Union Movement]: [...] Continued from 1798 (12th August) The British and Irish Parliaments simultaneously begin a debate concerning proposals by the Lord Lieutenant of Ireland, Charles, Earl Cornwallis [<=1798 (24th May)] that the two kingdoms should be merged by an Act of Union [=>1800 (1st August)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1799 (5th February) Bonaparte's Egyptian Campaign [V - The Syrian Expedition]: [...] Continued from 1798 (22nd October) Threatened now with a major Ottoman offensive Napoléon Bonaparte [Napoléon I of France]1804 [1798 (22nd October)<=20th March] mounts a pre-emptive expedition against an Ottoman build-up in northern Syria. Jaffa is taken and its defenders massacred on 7th May, followed by Haifa and Tyre, and Acre is put under siege on 20th March [see separate entry]. Acre, however, can be supplied by sea and holds out successfully. Bonaparte therefore raises the siege in late May and retreats to Egypt where on 25th July he crushes Egyptian resistance at the Battle of Aboukir [see separate entry]. Bonaparte will return to France on 23rd August 1799, leaving his army to surrender on fight on without him. They do this with notable professionalism for a further two years under Jean-Baptiste Kléber [<=1794 (26th June)] and Jacques-François Menou [Wikipedia biography] before negotiating safe passage back to France on 2nd September 1801. [THREAD = THE SHAPING OF THE MODERN WORLD]

1799 (2nd March-11th December) The Rhine Campaign, 1799: The French send a 30,000-man "Army of the Danube" under Jean-Baptiste, 1st Comte Jourdan [<=1794 (26th June)] across the Rhine to threaten the Upper Danube valley and seal the Alpine passes from the north while the Army of Italy goes on the offensive against the Kingdom of Naples. An Austrian army under Friedrich von Hotze [1793 (22nd December)<= killed in action 25th September 1799] successfully stabilises the Austrian position in northern Switzerland. [THREAD = THE SHAPING OF THE MODERN WORLD]

1799 (7th March) With George Finch, 9th Earl Winchilsea [Wikipedia biography], as its first President, the leading British scientists found the Royal Institution [Homepage] and dedicate it to "the application of science to the common purpose of life". [THREAD = THE INDUSTRIAL REVOLUTION]

1799 (20th March-21st May) The Siege of Acre: This nine-week siege is fought out as part of the Syrian Expedition of Bonaparte's Egyptian Campaign [<=5th February] between the French Expeditionary Army under Napoléon Bonaparte [Napoléon I of France]1804 [5th February<=25th July] and the Ottoman/British defenders of Acre under (the Ottomans) Jezzar Pasha [Wikipedia biography], (the city's Jewry) Chaim Farhi [Wikipedia biography], and (the Royal Navy) Sir William Sidney Smith [Wikipedia biography]. Having heard of Bonaparte's massacre of the defenders of Jaffa a few weeks previously the defenders take their task very seriously. Well supported from the sea, the defences hold and with plague rife in his ranks Bonaparte abandons the siege on 21st May. [THREAD = THE SHAPING OF THE MODERN WORLD]
1799 [27th August-19th November] The Den Helder Expedition: This Anglo-Russian amphibious assault takes place as part of the Batavian Campaign of the War of the Second Coalition [<=1798 (1st August)] between a British/Russian fleet under Prince Frederick of Hanover, Duke of York and Albany [1793 (6th September)<=>2nd October], Johann von Fersen [Wikipedia biography], and Ivan Essen [Wikipedia biography]==2nd October], and the French/Batavian defenders of Den Helder [map] under (the French) Guillaume, 1st Count Brune [Wikipedia biography]==2nd October] and (the Batavians) Herman Daendels [Wikipedia biography]==2nd October]. The pivotal engagements are at Alkmaar/Egmont-ap-Zee and Monnickendam in October [see separate entry]. The overall outcome is a negotiated British/Russian withdrawal. [THREAD = THE SHAPING OF THE MODERN WORLD]

1799 [25th July] The Battle of Novi Ligure: This battle is fought as part of the Italian Campaign of the War of the Second Coalition [<=1798 (1st August)] between a French army under Barthélemy Joubert [Wikipedia biography] and (his soon-to-be-brother-in-law) Joachim Murat [Wikipedia biography] and an Ottoman army under Said Mustafa Pasha [no convenient biography]. The outcome is a with-the-odds Russian/Austrian victory, with heavily disproportionate French casualties. [THREAD = THE SHAPING OF THE MODERN WORLD]

1799 [15th August] The Battle of Aboukir: This battle is fought as part of Bonaparte's Egyptian Campaign [<=1798 (1st August)] between the French Expeditionary Army under Napoléon Bonaparte [Napoléon I of France] [1794 (8th June)<=>9th November] and an Ottoman army under Said Mustafa Pasha [no convenient biography]. The outcome, thanks to an opportunistic cavalry charge by Murat's cavalry, is a total Ottoman rout. [THREAD = THE SHAPING OF THE MODERN WORLD]

1799 [112th July] The Combination Acts [I - The 1799 Act]: In an attempt to keep dissident workers on a tight leash the British Parliament passes "An Act to Prevent Unlawful Combinations of Workmen", prohibiting trades unions and collective bargaining. The Act simply further polarises the class confrontation between employers and workers, and drives the latter into secret meetings [continues at 1800 (29th July) ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

1799 [12th July] Joseph Fouché [Duc d'Otrante] [1794 (8th June)<=>9th November] is appointed Minister of Police, and over the coming weeks collaborates with Emmanuel Sieyès [1789 (4th July)<=>9th November] to suppress a potential Jacobin resurgence. This they do with dark efficiency. [THREAD = THE SHAPING OF THE MODERN WORLD]


1799 [??th April] The Monmouthshire Canal [III - As Finally Completed]: The "Cefn flight" [<=1794] of locks between Newport and Rogerstone are opened for traffic, thereby completing the Monmouthshire Canal [1796<=>1812 (?th February)] as originally conceived. The Talybont-Brecon section of the Brecknockshire Canal [=>1812 (?th February)] will follow over the ensuing 18 months. [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE: The "Fourteen Locks" were restored between 1965 and 2008 and are nowadays an open-air heritage museum [museum website].

1799 [12th July] The Combination Acts [I - The 1799 Act]: In an attempt to keep dissident workers on a tight leash the British Parliament passes "An Act to Prevent Unlawful Combinations of Workmen", prohibiting trades unions and collective bargaining. The Act simply further polarises the class confrontation between employers and workers, and drives the latter into secret meetings [continues at 1800 (29th July) ...]. [THREAD = THE INDUSTRIAL REVOLUTION]
1799 [2nd/6th October] The Battles of Alkmaar/Egmont-ap-Zee and Monnickendam: These linked battles are fought as part of the Den Helder Expedition [<=27th August] of the War of the Second Coalition [<=1798 (1st August)] between a British/Russian army under Prince Frederick of Hanover, Duke of York and Albany [<=27th August] and Ivan Essen [<=27th August], and a French/Batavian army under Guillaume, 1st Count Brune [<=27th August] and Herman Daendels [<=27th August]. The outcome is a British/Russian victory. [THREAD = THE WW1 ARMIES]

******* FRANCE BECOMES A CONSULAR REPUBLIC *******

1799 (9th November) 18 Brumaire Coup: Having already weakened their opponents in the 18 Fructidor Coup two years previously [<=1797 (4th September)], Joseph Fouché [Duc d'Otrante] 1808 [<=12th July], Emmanuel Sieyès [<=12th July], Roger Ducos [Wikipedia biography], and Napoléon Bonaparte [Napoléon I of France] 1804 [25th July<=1800] lead a conspiracy to overthrow the Directory government. Bonaparte, Sieyès, and Ducos are appointed provincial Consuls, and Fouché is kept on as Minister of Police. Bonaparte will be elevated to "First Consul" two years later [=>1802 (2nd August)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1800 The Development of Photography [I - Wedgwood]: [New sub-thread] Around this time the British amateur inventor Thomas Wedgwood [Wikipedia biography] carries out experiments on silver nitrate coatings for the projection plane of a camera obscura [<=1502].

ASIDE: It had long been the (known or suspected) practice amongst portrait and landscape artists to cast camera obscura images onto their canvases, the better to guide the composition and verisimilitude of their works [see example story]. What Wedgwood was trying to do was have the image record itself automatically without the need for the human go-between. Silver nitrate separates when exposed to light leaving a dark deposit.

Wedgwood obtains some small successes but stimulates a lot of follow-up research [sub-thread continues at 1822 (Niépce) ...], [THREAD = THE SHAPING OF THE MODERN WORLD]

******* THE "TRA Falgar CODE" *******

1800 Sir Home Popham [Wikipedia biography] introduces a "marine vocabulary" of "telegraphic signals". Officially adopted by the Admiralty three years later it includes a 3000-item codebook as well as a set of enciphering-deciphering principles by which number-sequences are built up from the digits 0 to 9 and then looked up therein. This permits a very rich command vocabulary, arranged in keyword-sorted alphabetical order. Here are some specimen hoists for keywords beginning with the letter "T" ...

- 2863 = "Can you spare a topmast"
- 2874 = "Set fire to the town"
- 2876 = "She is laden with treasure"

[THREAD = WW1 SIGNALLING AND TELECOMMUNICATIONS]

ASIDE - "ENGLAND EXPECTS ...": Popham's system will be used in 1805 at the Battle of Trafalgar [=>1805 (21st October)] to deliver Nelson's famously motivational signal. Here is the word [flag] sequence used ...


1800 The British foundry-master and experimental metallurgist David Mushet [Wikipedia biography] patents a process for the production of steel castings from wrought iron feedstock. [THREAD = THE INDUSTRIAL REVOLUTION]
1\textit{ASIDE}: Because steel is so difficult to work to shape compared with wrought iron [see the comparison of properties at 1795 (1st January)], there is a lot of money to be made by learning to cast it into moulds while molten. We shall shortly be seeing the importance of steel castings in the competition between the Vickers Company and the Krupp Company [\(\Rightarrow 1828\) and \(\Rightarrow 1851\), respectively], and it is one of the reasons why the Bessemer process [\(\Rightarrow 1855\)] will have such an effect on the armaments industries in the slow run-up to WW1. [THREAD = THE WW1 ARMAMENTS INDUSTRIES]

1800 The British chemist \textbf{Edward C. Howard} [\textit{Wikipedia biography}] synthesises \textit{fulminate of mercury} [\textit{Wikipedia chemistry}=>next entry], a highly sensitive contact explosive. The French gunsmith \textbf{Jean Lepage} [\textit{Wikipedia biography}] responds quickly to this breakthrough by using the hammer of a converted flintlock mechanism to detonate a small priming charge of fulminate by percussion alone, that is to say, without a spark. He builds this facility into his "First Consul" Carbine, so named in tribute to \textbf{Napoléon I of France} [1799 (9th November)\(\Rightarrow 14\)th June]. [THREAD = THE WW1 ARMAMENTS INDUSTRIES]


1800 [22nd February] The British gunsmith \textbf{Ezekiel Baker} [\textit{Wikipedia biography}] wins an open competition organised by the Board of Ordnance [\(\Rightarrow 1597\)] for a suitable weapon to equip a proposed new Rifle Corps. The resulting weapon, the \textit{Baker Rifle} [\textit{images}=>1809 (3rd January)], will enter service in 1801 and will remain in production until 1837. [THREAD = WW1 SMALL ARMS]

1800 [14th June] \textbf{The Battle of Marengo}: This battle is fought as part of the Italian Campaign of the War of the Second Coalition [\(\Rightarrow 1798\) (1st August)] between a French army under \textbf{Napoléon Bonaparte} [\textbf{Napoléon I of France}]\(\Rightarrow 1804\) [1800\(\Rightarrow 1801\) (3rd February)] and (the artillery) \textbf{Auguste de Marmont} [\textit{Wikipedia biography}=>1812 (22nd July)] and an Austrian army under \textbf{Michael von Melas} [\textit{Wikipedia biography}]. The outcome is close-run but historically significant French victory, leading to the occupation of north-western Italy. [THREAD = THE SHAPING OF THE MODERN WORLD]

\textit{WAR ART}: Bonaparte’s propaganda machine goes to work immediately, turning Marengo into a masterstroke of tactical foreplanning, and commissioning visual celebrations from \textbf{Jacques-Louis David} [1794 (8th June)\(\Rightarrow 1803\) (18th May [ASIDE])] - check out his (1801) painting "\textit{Napoléon at the Saint-Bernard Pass}".

1800 [29th July] \textbf{The Combination Acts [II - The 1800 Act]}: [Continued from 1799 (12th July)] Deficiencies having been found in the 1799 Combination Act the British Parliament passes the more precisely worded "An Act to Repeal [the 1799 Act] and Substitute Other Provisions". This replacement Act brings with it a new emphasis on the use of arbitration to settle labour disputes [continues at 1824 ...]. [THREAD = THE INDUSTRIAL REVOLUTION]

1800 [29th July] Based for the moment in France, and having been working on the project for seven years, the American inventor \textbf{Robert Fulton} [\textit{Wikipedia biography}=>1807] takes his first test dive in the experimental submarine \textit{Nautilus} [\textit{Wikipedia shipography}]. However the French Admiralty place no orders because they judge submarines to be suicide machines. [THREAD = THE WW1 SUBMARINE NAVIES]

1800 [1st August] [... Continued from 1799 (22nd January)] The parliaments of England and Ireland pass back-to-back Acts of Union, thereby creating the \textbf{United Kingdom of Great Britain}
and Ireland, together with a conglomerate flag - the Union Flag - to go with it. The Union will take effect on 1st January 1801. [THREAD = THE SHAPING OF THE MODERN WORLD]

1800 [3rd December] The Battle of Hohenlinden: This battle is fought as part of the Bavarian Campaign of the War of the Second Coalition [<=1798 (1st August)] between a French army under Jean Moreau [Wikipedia biography] and an Austrian army under Franz von Lauer [Wikipedia biography]. The outcome is a French victory, with heavily disproportionate Austrian casualties. The battle is noteworthy in the present context for seeing a certain Jean Lamarque [Wikipedia biography=>1828] (of whom more in due course) promoted to Brigadier-General. [THREAD = THE SHAPING OF THE MODERN WORLD]


1801 Automation, Control, and Artificial Intelligence [XXVI - Industrial Automation (Jacquard)]: [Continued from 1791 (De Prony)] The French master-weaver Joseph Marie Jacquard [Wikipedia biography] demonstrates a method of controlling his looms using precisely sequenced packs of pre-punched slats to codify the pattern of the weave in advance. Prior to this, it had been standard practice for around five thousand years to introduce the pattern into woven cloth by manually varying which warp threads were raised, and which lowered, at the moment the weft thread was passed. Using warps and wefts of different colours allowed you to build up your desired pattern, but it was slow and monotonous work, and subject to operator error. The key to Jacquard's advance lay in mechanising the process ... 

Key Invention - Jacquard's Needle System: For the technicalities see the Companion Resource [Section 3].

The Jacquard system is cited very frequently in histories of computing, because it brought numerical control to a manufacturing industry, and because it involved programming as we nowadays understand it [sub-thread continues at 1805 (The Turk) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL] [THREAD = THE INDUSTRIAL REVOLUTION]

1801 Philippe Pinel [<=1798] publishes "Traité Médico-Philosophique sur l'Aliénation Mentale" [in English in 1806 as "Treatise on Insanity"] in which he stresses the experience of alienation (from friends, family, society, etc.) suffered by mental patients, and in which he then presents positive results of therapeutic regimes which target their intervention at resolving same. [THREAD = WW1 PSYCHIATRY]

1801 William Dixon [no convenient biography] and David Mushet [1800<=1805] open a coke-fired blast furnace at Calder, near Airdrie, Scotland, using "black-band ironstone" - a hitherto overlooked resource¹ - as their primary ore. [THREAD = THE INDUSTRIAL REVOLUTION]

¹ASIDE: Black-band ironstone is an impure ironstone in which the ferrous microstrata are contaminated by carboniferous. Mushet snapped up the mining rights for this commodity as soon as he realised that the carboniferous component was fuel in itself, and would save him coal during the smelting process.

1801 Sir Charles Gould-Morgan, 1st Baronet Morgan of Tredegar [1797 (14th February)<=1802] leases land for an ironworks at Pontymister [map, etc.=>1845], Gwent, some six miles up the valley of the River Ebbw from Newport. It will not be a commercial success, however, until converted into a specialist steelworks in 1845. [THREAD = THE INDUSTRIAL REVOLUTION]
1801 Richard Crawshay [1795<=>1803] apprentices his 12-year old nephew Crawshay Bailey [Wikipedia biography=>1811] into his Cyfarthfa Ironworks [1795<=>1810], [THREAD = THE INDUSTRIAL REVOLUTION]

1801 The French master-weaver Joseph Jacquard [Wikipedia biography] demonstrates a method of controlling his looms using precisely sequenced packs of pre-punched slats to codify the pattern of the weave in advance. Prior to this, it had been standard practice for around five thousand years to introduce the pattern into woven cloth by manually varying which warp threads were raised, and which lowered, at the moment the weft thread was passed. Using warps and wefts of different colours allowed you to build up your desired pattern, but it was slow and monotonous work, and subject to operator error. The key to Jacquard's advance lay in mechanising the process ...

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The Jacquard system is cited very frequently in histories of computing, because it brought *numerical control* to a manufacturing industry, and because it involved *programming* as we nowadays understand it. [THREAD = THE INDUSTRIAL REVOLUTION]

1801 [3rd February-3rd April] The Prussian Annexation of Hanover: After many months of politicking Napoléon Bonaparte [Napoléon I of France] finally persuades the Prussians to occupy the Electorate of Hanover, presently one of the three kingdoms of George III of Great Britain and Ireland, Elector of Hanover [1792<=>1806 (6th August)], and the territory is handed over without a fight on 3rd April, whereupon the Prussians advance as far as Stade, the capital of Bremen-Verden [=1719]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1801 [9th February] The Treaty of Lunévillé: This treaty between France and Austria brings Austrian participation in the War of the Second Coalition [=1798 (1st August)] to an end. [THREAD = THE SHAPING OF THE MODERN WORLD]

1801 [14th February] Corn Riot in Newport: The present mayor of Newport, John Ladd [no convenient biography], takes part in a corn riot in the town, and is arrested. [THREAD = THE INDUSTRIAL REVOLUTION]

1801 [11th March] Upon the assassination of the Tsar, Paul I of Russia [=1796 (17th November)], his titles pass to his son Alexander I [Wikipedia biography=>1804], who promptly sets about expanding Russian interests into the Caucasus, thereby threatening the Persian Empire. [THREAD = THE SHAPING OF THE MODERN WORLD]

1801 [2nd April] The First Battle of Copenhagen: This battle is fought as part of the Baltic Campaign of the War of the Second Coalition [=1798 (1st August)] between a British fleet under Sir Hyde Parker [Wikipedia biography] and a Danish-Norwegian fleet. The engagement results in a clear but costly British victory, and is noteworthy in the present context (a) [so the story goes] for the incident in which Admiral Parker's second-in-command, Horatio Nelson [1st Viscount Nelson] [=1798 (1st August)<=>1805 (21st October)] deliberately, famously, and literally, "turns a blind eye" to an order he is unhappy with, and (b) for use of the bomb ketches [=1682] for shore bombardment. [THREAD = THE SHAPING OF THE MODERN WORLD]

1801 [25th May] Workers' Demonstration in Merthyr Tydfil: Two Merthyr Tydfil food rioters, Samuel Hill [no convenient biography] and Aaron Williams [no convenient biography] are hanged in Cardiff for public order offences. [THREAD = THE INDUSTRIAL REVOLUTION]
1801 [13th June/14th July] **The Battles of Algeciras Bay:** These two naval battles are fought as part of the Mediterranean operations of the War of the Second Coalition [<=1798 (1st August)] between a British fleet under [Sir James Saumarez](https://en.wikipedia.org/wiki/Sir_James_Saumarez) and a French/Spanish fleet under [Charles Linois](https://en.wikipedia.org/wiki/Charles_Linois) and [Juan Moreno] [no convenient biography]. The first engagement goes to the French/Spanish, and the second to the British. [THREAD = THE SHAPING OF THE MODERN WORLD]

1801 [5th-23rd June] The **Union Iron Company** fires up a new blast furnace at Rhymney, a Heads-of-the-Valleys community mid-way between Merthyr Tydfil and Tredegar. [THREAD = THE INDUSTRIAL REVOLUTION]

1801 [24th December] **Richard Trevithick** [1797<=1802] demonstrates a steam-powered carriage capable of climbing Tehidy Hill, Camborne, Cornwall. [THREAD = THE INDUSTRIAL REVOLUTION]

1802 **The Merthyr Tramway II - Open for Business:** [...] The Merthyr Tramway [1799<=1804 (21st February)] is completed for horse-drawn tram-freight [continues at 1804 (21st February) ...]. Meanwhile over at the Coalbrookdale Ironworks [<=1775] **Richard Trevithick** [1801 (24th December)<=1803] is conducting trials of the "Coalbrookdale Locomotive" [Wikipedia image], but there is an accident and the drive mechanism is re-mounted for static use. [THREAD = WW1 RAILWAYS]

1802 The American engineer **John Stevens** [Wikipedia biography][]{1805} demonstrates a screw-propelled steamboat. [THREAD = THE INDUSTRIAL REVOLUTION]

1802 Parliament approves a section of **Sirhowy Tramway** from Nine Mile Point down to the Uskside dock complex at Courtybella, Newport. The last mile of the tramway - the "golden mile" - runs by design through the fringe of the **Tredegar Estate** [1799<=1806 (6th December)], the ancestral home of **Sir Charles Gould-Morgan, 1st Baronet Morgan of Tredegar** [1801<=1806 (6th December)]. The line will open during 1805 and the golden mile alone will earn Morgan some £3000 per annum in tolls. [THREAD = THE INDUSTRIAL REVOLUTION]

1802 [25th March] **The Treaty of Amiens:** This treaty between Britain, France, Spain, and the Batavian Republic brings the War of the Second Coalition [<=1798 (1st August)] to an end. Britain agrees to recognise the French Republic and return a number of its recent overseas conquests. Paris, at peace for the first time for years, is suddenly the place to visit. [THREAD = THE SHAPING OF THE MODERN WORLD]

1802 [25th June] **The Treaty of Paris:** This treaty between France and the Ottoman Empire brings the Egyptian Campaign of the War of the Second Coalition [<=1782 (1st August)] to an end and returns Egypt to the Ottomans. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** BONAPARTE BECOMES "FIRST CONSUL" **********

1802 [2nd August] A plebiscite of the French people approves **Napoléon Bonaparte** [Napoléon I of France][1804] [1801 (3rd February)<=1803 (18th May)] as "Consul for Life" by a majority of 3,653,600 to 8272. [THREAD = THE SHAPING OF THE MODERN WORLD]

1803 Upon the retirement of **John Walter [I]** [<=1788 (1st January)] the proprietary editorship of **The Times** passes to his oldest surviving son **John Walter [II]** [Wikipedia biography][]{1817} (Walter). [THREAD = THE BATTLE FOR HEARTS AND MINDS]
1803  **Richard Crawshay** [1801<=1804 (21st February)] acquires the **Rhymney Ironworks** [<=1801 (5th June)]. At Merthyr Tydfil, meanwhile, **Samuel Homfray** [1799<=1804 (21st February)] engages steam locomotive pioneer **Richard Trevithick** [1802<=1804 (21st February)], who now repeats his Coalbrookdale steam traction experiment [<=1802], this time capable of drawing trams not just within the ironworks but down the valley towards Cardiff. Crawshay hears of the project and places a 500-guinea bet that the machine will not be able to haul a ten-ton load down the full length of the **Merthyr Tramway** [1802<=1804 (21st February)] to Abercynon.  

**THREAD = THE INDUSTRIAL REVOLUTION**

1803  [4th January]  **William Symington** [<=1788] now trials a steam-powered canal tug named **Charlotte Dundas** [Wikipedia shiopgraphy]. **THREAD = THE INDUSTRIAL REVOLUTION**

1803  [19th February]  The French client Helvetic Republic is reconstituted as a confederation of separate Cantons. This situation will maintain until the end of the Napoleonic Wars [=>1815 (8th June)].  

**THREAD = THE SHAPING OF THE MODERN WORLD**

1803  [30th April]  The **Louisiana Purchase**: France sells its Louisiana Territory to the United States for 60,000,000 Francs. The U.S. have borrowed much of this sum from **Barings Bank** [Wikipedia bankography] in London, despite the fact that Britain is presently at war with France.  

**THREAD = THE SHAPING OF THE MODERN WORLD**

1803  [18th May]  The **Napoleonic Wars, 1803-1815**: Following the brief lull in the French Revolutionary Wars [<=1792 (20th April)] Britain declares war on France. After a period in which she will fight alone the war re-ignites across Europe, ebbing and flowing in phases until 1815. Here, including the internal socio-economic troubles which affected Britain in 1811, are the major phases ...  

- **BRITAIN FIGHTS ALONE, 1803-1805**
- **THE WAR OF THE THIRD COALITION, 1805-1806**
- **THE WAR OF THE FOURTH COALITION, 1806-1807**
- **THE WAR OF THE FIFTH COALITION, 1809**
- *The Luddite Campaign, 1811*
- The Invasion of Russia, 1812
- **THE WAR OF THE SIXTH COALITION, 1812-1814**
- The War of 1812-1814
- **THE WAR OF THE SEVENTH COALITION, 1815** [a.k.a. the "Hundred Days"]

********** GERMANY BECOMES THE CENTRE OF EUROPE **********

The Napoleonic Wars are noteworthy in the present context not just for bringing the Holy Roman Empire to a formal ending, but also for helping to move the psychological frontiers of Europe to the east, a move which has the inevitable consequence that Germany suddenly finds itself at the centre of Europe instead of off toward one side of it.  

**THREAD = THE SHAPING OF THE MODERN WORLD**

**PROPAGANDA IN THE NAPOLEONIC WARS**: Taylor (1990) is impressed by the breadth of Napoleon’s propaganda vision, as follows ...

"Napoleon believed that ‘three hostile newspapers are more to be feared than a thousand bayonets’ and he accordingly closed down 64 out of the 73 French newspapers in 1800-1. His censorship system would succeed where Louis XIV’s had failed: by its sheer thoroughness. [...] He and his ministers contributed regularly to the surviving papers and to the many ‘non-political’ publications he encouraged. The *Moniteur* became the official government mouthpiece and was distributed free to the army. His image appeared on coins, medals, statues, and paintings. The letter ‘N’ was everywhere as a massive wave of public building works refashioned the architecture of Paris between 1804 and 1813. [...] By 1810 there were only four newspapers left in..."
France. 'If I had a free press,' he wrote, 'I wouldn't last more than three months'" (Taylor, 1990, pp128/145).

Jowett and O'Donnell (1992) add ...

"[Jacques-Louis David [<=1800 (14th June)] was later restored to his former glory by Napoleon for whom he created a very specific imperial image. David's style utilised a sense of realism that sought to create art for the middle classes, and was entirely appropriate to the revolutionary context of the times. His work continues to serve as an inspiration to later political regimes seeking to glorify their exploits through works of art. [...] It was out of the chaos of the destruction of the old French society that the 'man on the white horse' emerged - Napoleon Bonaparte, who must be considered one of the great masters of the use of propaganda in history. [...] Like Caesar before him, he wrote self-congratulatory accounts of his military exploits, and created for himself a swashbuckling image of the dashing commander. Napoleon was among the first of the modern propagandists to understand the need to convince the population that the rights of the individual were less important than the willingness to sacrifice one's life for emperor and nation. In this way he was able to gather large populist armies even in the worst of times. The visual image of the romantic hero was created with the assistance of [David], who helped design the clothes, hairstyle, and other accoutrements that have come down to us today as an unmistakable symbol of the [...] French leader. Napoleon's portrait appeared everywhere, accompanied by his ubiquitous eagles, and he took the lead in designing a specific form of imperial architecture that was a mixture of Roman, Etruscan, and Egyptian styles - all great empires of the past. [...] Napoleon quickly learned to exploit the power of the press to his advantage as a political weapon, devising new propaganda techniques that caught his opponents by surprise. [...] Several papers were even founded by the French in occupied German territories, while in Paris there appeared a newspaper called the Argus of London, which was allegedly edited by an Englishman, but was, in actuality, produced by the French Foreign Office. [...] Napoleon also made wide use of leaflets distributed before his invading armies. [...] So successful were Napoleon's propaganda techniques in creating his imperial image that his legend became even stronger after his death in 1821. [...] Nearly a million people watched as his remains were conveyed through the Arc de Triomphe to his specially built tomb ..." (pp73-77).

Across the Channel in Britain, meanwhile ...

"As fears of a French invasion mounted, a surge of patriotism gripped the English as the Anti-Jacobin [<=1892 (20th April); 1797 (20th November)] and other publications summoned the spirit of Crécy and Agincourt, recalled the Spanish Armada, and found a new national hero in Horatio Nelson [...] James Gillray's [1797 (20th November)<=1805 (26th February)] famous political cartoons attacking the French and the Foxites [= the British political centre-ground] were widely reprinted" (Taylor, 1990, p146).

ASIDE: This was the year that Gillray took his argument ad hominem by turning Napoleon into "Little Boney", consistently drawing him (as Spitting Image would do with David Steel 200 years later) shorter than those around him - simply browse <Gillray+Napoleon> for specimen images. Perhaps the cleverest aspect of the propaganda is that it was never directly anti-French; rather it satirised this or that event in British political circles against a background of characters and actions which matched the actual or - even better - a desired popular perception of the French and why they needed to be beaten.

1803 [18th May] BRITAIN FIGHTS ALONE, 1803-1805: This early phase of the Napoleonic Wars begins with Britain impounding French shipping in its ports and declaring war on France. Napoléon Bonaparte [Napoléon I of France] responds by gathering together an "Armée d'Angleterre" [= "Army of England"] and starts to build invasion barges in the Channel ports, all paid for by the proceeds of the Louisiana Purchase [=30th April] (much of it borrowed from Britain, remember). Here are the main events ...
The stand-off between the Royal Navy and the Franco-Spanish fleets will be resolved in Britain’s favour by the Battle of Trafalgar [=1805 (21st October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1803 [18th/26th May] The French Invasion of Hanover: The early phase of the Napoleonic Wars begins with Britain declaring war on France on 18th May. The French then immediately send troops into Hanover and Saxe-Lauenburg. [THREAD = THE SHAPING OF THE MODERN WORLD]

1804 The 5th Regiment of Dragoon Guards [=1782] is retitled the 5th (Princess Charlotte of Wales's) Regiment of Dragoon Guards [=1914]. [THREAD = THE WW1 ARMIES]

1804 The British government acquires a green-fields site at Ballincollig, just outside Cork, Ireland, and establishes a gunpowder factory. [THREAD = WW1 ARTILLERY]

1804 Basing himself at the Woolwich Royal Laboratory [=1794], the British politician and amateur military engineer Sir William Congreve (the Younger) [Wikipedia biography] conducts a series of experiments with stick-stabilised rockets ranging in size from one to three metres long, and with commensurately sized propellant tubes and warheads. These weapons soon become known generically as "Congreve rockets" [image]. Congreve demonstrates that his rockets - although individually wildly inaccurate - can be effective as weapons providing the target is sufficiently big and you have enough rockets. He puts his designs into production as his workshops in West Ham in readiness for field deployment at the Battle of Copenhagen [=1807 (16th August)], the Peninsular Campaign [=1807 (27th October)], the War of 1812 [=1814 (13th September)], the Battle of Leipzig [=1813], and the Battle of Waterloo [=1815 (18th June)]. [THREAD = WW1 ARTILLERY]

1804 [5th May] The Battle of Suriname: This sea-borne invasion is fought as part of the "Britain-only" years of the Napoleonic Wars [=1803 (18th May)] between a British expeditionary fleet under Sir Samuel Hood [=1793 (18th September)] and the Batavian/French garrison on Suriname, South America. The outcome is a British victory. The operation is noteworthy in the present context as the first battle in which shrapnel shells are used on a general issue basis. [THREAD = WW1 ARTILLERY]

1804 [15th January] The Russo-Persian War, 1804-1813: This war is fought between Alexander I of Russia [1801 <=1805 (2nd December)] and Fath Ali Shah Qajar of Persia [Wikipedia biography] over territorial claims in what will become modern Azerbaijan, Georgia, and Armenia. The war will end with the Treaty of Gulistan [=1813 (24th October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1804 [14th February] The First Serbian Uprising, 1804-1813: This war of ethno-political liberation is fought between Serbian nationalist rebels led by Karadorde Petrović [Wikipedia biography] and the Ottoman Empire army of occupation. The Ottomans withdraw from the region after the Nationalists capture Belgrade in 1807, but then return in October 1813. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** IMPORTANT WW1 INFRASTRUCTURE **********

1804 [21st February] The Merthyr Tramway [III - Made Famous]: [... Continued from 1802] Richard Trevithick's Penydarren locomotive [1803 <=1808 (8th July)] successfully hauls ten tons of iron and 70 passengers over a nine-and-a-half-mile stretch of the Merthyr
Tramway \( [<=1803] \), thereby winning Samuel Homfray \( [1803<=1807] \) his wager with Richard Crawshay \( [1803<=1810 \text{ (27th June)}] \). [THREAD = WW1 RAILWAYS]

**ASIDE:** As it happened Trevithick's five-ton locomotive broke a number of the three-foot-long cast iron plate rails, because - designed for smaller loads - they were poorly ballasted. The cost of upgrading the fixed way therefore caused considerable resistance to the new technology. As for the locomotive itself, one commentator described the machine as “a clockmaker's nightmare”. A replica of Trevithick's locomotive is in the Welsh National Maritime Museum, Swansea [see museum website]. We have marked this development as historically pivotal because the entire WW1 Schlieffen Plan depends on the use of the German (and captured) railway systems for mobilisation and supply.

******* FRANCE BECOMES AN EMPIRE *******

1804 [18th May] France is now proclaimed an Imperial Republic and Napoléon Bonaparte \( [1803 \text{ (18th May)}<=1805 \text{ (28th September)}] \), "Consul for Life" for the past two years \( [<=1802 \text{ (2nd August)}] \), is declared its first Emperor\(^1\). [THREAD = THE SHAPING OF THE MODERN WORLD]

\(^1\)ASIDE: We shall henceforth track him as "Napoléon I of France", and refer to him as "Napoléon" rather than "Bonaparte". Jowett and O'Donnell (1992) explain the symbolism of the event as follows ...

"It was at his coronation at Notre Dame Cathedral on December 2 1804 that Napoleon achieved one of his greatest propaganda triumphs when he took the imperial crown from the hands of Pope Pius VII and placed it on his own head, symbolising that he owed allegiance to no one ..." (p74).

1805 Automation, Control, and Artificial Intelligence [XXVII - The Turk (Change of Hands)]: [Continued from 1783 (The Turk)] Following von Kempelen’s [1783] death in 1804 The Turk is acquired from his estate by the German inventor-showman Johann Mälzel/Maelzel [Wikipedia biography=>1809], who promptly sets about upgrading it and learning its ways. At much the same time the Swiss clock-maker Henri Maillardet [Wikipedia biography] demonstrates an automaton named "The Great Magician" [YouTube demonstration], which is capable of somehow "reading" one of a set of possible input questions, and selecting the corresponding right answer [sub-thread continues at 1809 (The Turk) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

1805 Sampson Hanbury \( [<=1780] \) acquires a steam engine to power the Truman's Brewery \( [<=1780] \) site at Bow, London, thereby helping him double production in the period from 1800 to 1820. At around the same time the Melingriffith Tinplating Works \( [1795<=1808] \) buys up feeder furnaces at Pentyrch, two miles to the west, and David Mushet \( [1801<=1808] \) relocates to the Alfreton Ironworks in the English East Midlands. [THREAD = THE INDUSTRIAL REVOLUTION]

1805 The 24-mile Sirhowy Tramway \( [<=1802] \) opens, linking the Sirhowy [B] Ironworks \( [<=1799] \) to the docks at Newport. A new 33-arch "long bridge" is built to cross the Ebbw at Risca. [THREAD = THE INDUSTRIAL REVOLUTION]

1805 The gunpowder factory and gun foundry complex at Woolwich, London, is awarded the title "The Royal Arsenal". [THREAD = WW1 ARTILLERY]

1805 [20th February] Sir William Congreve (the Younger) [<=1804] writes to The Times suggesting that wooden ships might benefit from being claded in iron armour. [THREAD = THE WW1 SURFACE NAVIES]

ASIDE - NAVAL ARMOUR: This being a highly technical topic we recommend advanced students to the late Gene Slover's Chapter on Armour (1957, full text online).

1805 [26th February] James Gillray’s [<=1803 (18th May)] latest cartoon is entitled "The Plumb-Pudding in Danger" [National Portrait Gallery image], a depicts Pitt and Napoléon helping themselves to slices of a pudding world. The work will be much copied and is nowadays assessed as Gillray's most famous print. [THREAD = THE BATTLE FOR HEARTS AND MINDS]


1805 [22nd July] The Battle of Cape Finisterre: This naval battle is fought as part of the Britain Only phase of the Napoleonic Wars [<=1803 (18th May)] between a British fleet under Robert Calder [Wikipedia biography] and a somewhat larger French/Spanish fleet under Pierre de Villeneuve [Wikipedia biography]. The outcome is a marginal British victory on the day, but Calder is (some say unreasonably) court-martialled for not re-engaging for a second day. [THREAD = THE SHAPING OF THE MODERN WORLD]

1805 [28th September] The War of the Third Coalition, 1805-1806: This war is fought as part of the broader Napoleonic Wars [<=1803 (18th May)] between France and its client republics from time to time and a coalition of nations including Britain, Austria, Russia, Sweden, and Naples. Here are the main events ... The Ulm Campaign, 1805; The Battle of Trafalgar, 1805; The Battle of Austerlitz, 1805

The war will end with the Treaty of Pressburg [=>26th December] and is noteworthy in the present context for creating a sense of common identity and purpose within the non-Prussian German states, that is to say, Bavaria, Baden-Württemburg, Hesse, and Saxony. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE ARMY CORPS IS BORN  **********

1805 [28th September-20th October] The Ulm Campaign: This campaign is the first event in the War of the Third Coalition [preceding entry]. It is fought between the 210,000-man Grande Armée under Napoléon I of France [1804 (18th May)<=>1806 (2nd December)] and an allied 25,000-man Bavarian army and a 72,000-man Austrian army under Karl Mack von Lieberach [Wikipedia biography]. The campaign begins in earnest when von Lieberath invades Bavaria, occupying Ulm and spreading his troops in a defensive screen across the Black Forest. The Grande Armée, however, are simply in a higher league and von Lieberath is totally outmanoeuvred. The outcome is a historically decisive French victory with crushingly disproportionate Austrian casualties. The campaign is noteworthy in the present context for introducing the 30,000-man Army Corps as a highly effective unit of command and manoeuvre. [THREAD = THE SHAPING OF THE MODERN WORLD]

1ASIDE - THE GRANDE ARMÉE: This is the hitherto unused Armée d'Angleterre [<=1803 (18th May)]. It has been transferred at speed across France and will henceforth be known as the Grande Armée. It has used its months of inactivity to good effect, being well-trained, well-equipped, and professionally commanded.

********** BRITANNIA RULES THE WAVES, BUT ... **********
1805 [21st October] The Battle of Trafalgar: This naval battle is fought as part of the War of the Third Coalition [<=28th September] between a British fleet under Horatio Nelson, 1st Viscount Nelson [1801 (2nd April) <= dies this day] and Cuthbert Collingwood [Wikipedia biography] and a significantly larger French/Spanish fleet under Pierre de Villeneuve [<=22nd July]. The outcome is a historically decisive British victory with crushingly disproportionate French/Spanish losses. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** ... MARIANNE RULES ASHORE**********

1805 [2nd December] The Battle of Austerlitz: This battle is fought as part of the War of the Third Coalition [<=28th September] between the French Grande Armée under Napoléon I of France [28th September <= 1806 (30th January)] and a significantly larger Russian/Austrian army under Alexander I of Russia [1804 (15th January) => 1807 (25th June)]. The outcome is a historically decisive French victory with crushingly disproportionate Russian/Austrian losses. [THREAD = THE SHAPING OF THE MODERN WORLD]

1805 [15th December] The [1805] Treaty of Schönbrunn: This treaty between France and Prussia awards Hanover to Prussia in exchange for Ansbach-Bayreuth and other territories awarded to France. [THREAD = THE SHAPING OF THE MODERN WORLD]

1805 [26th December] The Treaty of Pressburg: This treaty between France and Austria sees the latter's withdrawal from the Third Coalition, thus in effect bringing the War of the Third Coalition [<= 1805 (28th September)] to an end. [THREAD = THE SHAPING OF THE MODERN WORLD]


1806 [5th June] The Kingdom of Holland: Doing away with the Batavian Republic [<= 1795 (19th April)] the French now install Louis Bonaparte, brother of the French emperor, as Louis I of Holland [Wikipedia biography => 1810 (1st July)]. To his credit the new king will take his new kingdom very seriously, learning to speak Dutch and not slavishly following instructions out of Paris. Indeed when the new kingdom has exhausted its immediate usefulness Napoléon I of France [30th January <= 12th July] has to occupy the country to force him to abdicate [=> 1810 (1st July)]! [THREAD = THE SHAPING OF THE MODERN WORLD]

1806 [12th July] The War of the Fourth Coalition, 1806-1807: This war is fought as part of the broader Napoleonic Wars [<= 1803 (18th May)] between France and a coalition of nations including Britain, Prussia (between 1st and 27th October 1806), Saxony (ditto), Russia, and Sweden. Here are the main events ...

The French Invasion of Hanover, 1803 [casus belli ante]; The Battles of Jena and Auerstädt, 1806

The war will end with the Treaties of Tilsit [=> 1807 (25th June)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** FRANCE HELPS THE "NON-PRUSSIAN GERMANS" UNITE **********

1806 [12th July] The Confederation of the Rhine: [See firstly the three German-speaking populations at 1792 (20th April [ASIDE])] Having already created client states1 from north-to-south along the eastern bank of the Rhine, Napoléon I of France [5th June => 6th August] now unites them
politically as the "Confederation of the Rhine", a sort of "United States of Germany".

**1** ADISE: With the dis-establishment of the Holy Roman Empire [=>next entry] the Electorates of Saxony and Bavaria are reconstituted as kingdoms, other entities as republics. A further puppet kingdom - that of Westphalia - will be created at the end of the War of the Fourth Coalition [=>$1807 (25th June)$].

**THE CONFEDERATION OF THE RHINE IN WW1**: The Confederation States will not, of course, fight as such in WW1, having already been assimilated (along with the "Prussian Germans") after the France-Prussian War [=>$1871 (18th January)$] into Germany-as-Unified. They will, however, retain local traditions, sub-national psychological identities, and sometimes intense regional rivalries. For example Dunn (1938) records an occasion in his Royal Welch Fusiliers memoirs when the Saxons at one point in the line clearly expressed no great love for either the Prussians or the Bavarians [=>$1938 (check it out - it's a great story)$]!

1806 [6th August] Napoléon I of France [12th July<=$1807 (14th October)$] formally proclaims the dis-establishment of the Holy Roman Empire, bringing to an end more than a thousand years of dynastic rule in Central Europe. To the extent that it is accepted internationally (that is to say, not just by Napoléon's client republics) this immediately dissolves all Electorates and Electoral rights, including that of George III of Great Britain and Ireland [1801 (3rd February)=$d.1820 (29th January)$]. [THREAD = THE SHAPING OF THE MODERN WORLD]


1806 [14th October] The Battles of Jena and Auerstädt: These twinned battles are fought as part of the War of the Fourth Coalition [<=$12th July$] between a French Army under Napoléon I of France [6th August<=$1807 (14th June)$] and a Prussian-Saxon alliance. The outcome is a severe defeat for the Germans, followed soon after by the French occupation of Prussia. Napoléon enters Berlin in triumph on 27th October. The battles are noteworthy in the present context for stinging the Prussians into a series of reforms [=>$1807$]. [THREAD = THE SHAPING OF THE MODERN WORLD]

**WAR ART**: Compare Horace Vernet's "Napoléon Reviewing the Imperial Guard" with Richard Knötel's "Doppelschlacht", noting the difference between winners and losers. See also "Napoleon's Entry into Berlin" and compare Hitler's entry into Paris, 1940. The pictures paint themselves once you know the rules!


1807 Having returned to the United States after his failure to sell submarine technology to the French, Robert Fulton [<=$1800$] and the politician Robert R. Livingston [Wikipedia biography] go into the steamboat business. They build the S.S. North River [Wikipedia shipography] and run her between New York City and Albany, NY, 150 miles further up the Hudson River. Around the same time the father-and-son Stevens team [1805<=$1809$] (??th June) has its S.S. Phoenix under trials at Hoboken, N.J. [THREAD = THE INDUSTRIAL REVOLUTION]

1807 The British clergyman and amateur gunsmith Alexander Forsyth [Wikipedia biography] patents a variant flintlock in which a flint-less hammer strikes a priming charge of fulminated mercury. [THREAD = WW1 SMALL ARMS]
1807 The Tredegar Wharf Company: Sir Charles Morgan, 2nd Baronet Morgan of Tredegar [1806 (6th December) <= 1846 (5th December)] and his brother-in-law Samuel Homfray [1804 <= 1822 (22nd May)] go into business as the Tredegar Wharf Company in order to develop dock facilities on the River Usk at Newport. They service the docks by building the new workers’ suburb of Pillgwenlly - all rents going to the company! [THREAD = THE INDUSTRIAL REVOLUTION]

1807 [14th March-2nd July] The Siege of Kolberg: This four-month siege is fought as part of the Prussian Campaign of the War of the Fourth Coalition [<= 1806 (12th July)] between a besieging French army under Claude Victor-Perrin [Wikipedia biography] and the Russian garrison at Kolberg, Pomernia, under Ludwig von Lucadou [Wikipedia biography] and August von Gneisenau [Wikipedia biography] <= 8th October]. The outcome is an exceptionally hard-fought draw, the Prussians managing to hold out until the Treaties of Tilsit [=> 14th June] eventually gift the town to the French as spoils of war. [THREAD = THE SHAPING OF THE MODERN WORLD]

WAR MOVIE: Over half a century after the event the German playwright Paul Heyse [Wikipedia biography] publishes "Colberg", a tribute to the Prussian defenders. This in turn will inspire Veit Harlan’s (1945) Nazi propaganda movie "Kolberg" (Universum) [YouTube full length movie].

********** HISTORY'S FIRST PUBLIC PASSENGER RAILWAY **********

1807 [25th March] The Swansea and Mumbles Railway: The entrepreneur Benjamin French [no convenient biography] opens a horse-drawn passenger rail service along the bay front between Swansea and Oystermouth. [THREAD = THE INDUSTRIAL REVOLUTION]

********** THE RUSSIAN THREAT IS DEALT WITH FOR NOW **********

1807 [14th June] The Battle of Friedland: This battle is fought as part of the Prussian Campaign of the War of the Fourth Coalition [<= 1806 (12th July)] between a French army under Napoléon I of France [1806 (14th October) <= 25th June] and a significantly larger Russian army under Levin von Bennigsen [Wikipedia biography]. The outcome is a historically decisive against-the-odds French victory with crushingly disproportionate Russian casualties. The battle offers a particularly good example of the devastating use of rapid-fire canister shot against infantry in close order. [THREAD = THE SHAPING OF THE MODERN WORLD]

1807 [25th June] The Treaties of Tilsit: These treaties between Alexander I of Russia [1805 (2nd December) <= 1812 (24th June)] and Napoléon I of France [14th June <= 1809)] bring the War of the Fourth Coalition [<= 1806 (12th July)] to an end. The discussions also give Alexander and Napoléon the chance to agree on a gloriously grandiose plan for French-Russian cooperation, namely that in the short term France will rule Western Europe and Russia will rule Eastern Europe, and then, when the dust has settled, they will join forces in a major thrust down through Asia Minor and Persia. For his part Frederick William III of Prussia [1807 <= 1813] forfeits nearly half his territory to "non-Prussian Germans" in the west and to the Russians in the east. (Much of the western forfeiture is to a new Kingdom of Westphalia, created for Napoléon's brother Jérôme Bonaparte [Wikipedia biography], and much of the eastern is to a so-called Duchy of Warsawa [roughly modern Poland but without a coastal strip], created for Frederick Augustus of Saxony [<= 1806 (1st October)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1807 [16th August] The Second Battle of Copenhagen: This three week battle is fought as part of the Napoleonic Wars [<= 1803 (18th May)] between a British fleet under Admiral James Gambier [Wikipedia biography] and a Danish-Norwegian fleet. The engagement results in a decisive British victory, and is noteworthy in the present context (a) for the
deployment of seven Royal Navy bomb ketches [<=1682] [THREAD = THE WW1 SURFACE NAVIES], and (b) the use of 25,000 Congreve rockets [<=1804] as incendiary devices [THREAD = WW1 ARTILLERY].

**WAR ART:** See Christoffer Eckersberg's "Copenhagen on Fire".


1807 [8th October] The Prussian Reforms [I - Non-Military]: The Prussian politician Baron vom Stein [Wikipedia biography] is appointed Ministerpräsident [= prime minister] and sets out to restore some structure and direction to Prussian national decision-making with a raft of social, agricultural, educational, economic, and political reforms. [THREAD = THE SHAPING OF THE MODERN WORLD]

1807 [8th October or thereabouts] **Prussian Reforms [II - Military]:** Following the defeat at the Battles of Jena and Auerstädt[<=1806], Frederick William III of Prussia [1797<=25th June] commissions an urgent Reorganisationkommission [= Reform Commission] into systemic weaknesses in the Prussian military establishment and its methods. This enquiry is led by the newly appointed Minister of War, Gerhard von Scharnhorst [1788<=1815 (20th November)], with input from other forward-thinking officers such as August von Gneisenau [14th March<=1815 (16th June)], Hermann von Boyen [Wikipedia biography], and Carl von Clausewitz [Wikipedia biography] >1818. Here is how it might have looked ...

**WAR ART:** Check out Carl Röchling's (ca. 1890) "Meeting of the Reformers".

The changes include (a) improvements in officer selection and training, (b) expansion of the War Ministry and strengthening the Army General Staff, (c) reforms of military justice, (d) establishing an officer training school, (e) compulsory national service (from 27th May 1814), (f) changes to the infantry model, such as requiring each regiment to scope its third battalion as a fusilier battalion, that is to say, as light infantry, and (g) emphasising the "brigade" as the unit of command and communication. [THREAD = THE WW1 ARMIES]

**ASIDE - BRIGADES AS UNITS OF ARMY ORGANISATION:** [See firstly 1686 (ASIDE)] A brigade is an assembly of army units brought together on a non-permanent basis for the discharge of this or that mission. This will normally involve units from different military specialisms and/or regiment, such as grenadiers, sharpshooters, line infantry, reconnaissance, cavalry, logistics, and artillery. Under the command of a "Brigadier General", or "Brigadier" for short, the brigade thus has all the skills it needs and can fight relatively independently. This in itself reduces the amount of sideways communication in the chain of command. The Scharnhorst changes outlined above also ensured that communication between Headquarters staff and Brigade staff was on a named and known basis.

1807 [27th October] **The Peninsular War, 1807-1814:** This is the name given to that element of the broader Napoleonic Wars [<=1803 (18th May)] set in the Iberian Peninsular (i.e., Spain and Portugal). It is fought between Free Spain, Portugal, and Britain on the one hand, and Napoleonic Spain and France on the other. The war is conventionally treated under the following lesser headings ...
The war will pause without formal treaty after the Retreat to La Coruña [=> 1809 (3rd January)] and then end for good with the Treaty of Vienna [=> 1814 (1st November)]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1807 [27th October] **The Treaty of Fontainbleau**: This treaty between France and Spain agrees a strategic plan for the conquest and division of Spain's old enemy, Portugal. [THREAD = THE SHAPING OF THE MODERN WORLD]

1807 [19th-30th November] **The Invasion of Portugal**: The combined French-Spanish invasion armies under Jean-Andoche Junot [Wikipedia biography] cross into Portugal, taking Lisbon without a fight on 1st December but failing to capture either the Royal household or the Portuguese fleet, both of whom relocate to Rio de Janeiro. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 David Mushet [<=1805] helps redesign the Whitecliff Ironworks [=1798]. [THREAD = THE INDUSTRIAL REVOLUTION]

1808 The French gunsmith François Prélart [Wikipedia biography] develops a self-contained paper cartridge for a breech-loader complete with an integral charge of fulminate of mercury. [THREAD = WW1 SMALL ARMS]

1808 One John Macdonald [no convenient biography] publishes "A Treatise on Telegraphic Communication, Naval, Military, and Political", in which he (largely unsuccessfully) proposes a number of suggestions to the Popham System [<=1800]. Likewise Joseph Conolly [no convenient biography] and "A Treatise on Telegraphic Communication by Day and Night". [THREAD = WW1 SIGNALLING AND TELECOMMUNICATIONS]

1808 [29th February] **The Capture of Barcelona**: This (non-)battle is fought as part of the Peninsular War [<=1807 (27th October)] between a French army under Giuseppe Lechi [Wikipedia biography] and the Royalist Spanish garrison at Barcelona under nobody in particular. The outcome is pretty much a walk-in capture of the city. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 [2nd-3rd May] **The Madrid Rebellion**: This short-lived urban rebellion is fought out as part of the Peninsular War [<=1807 (27th October)] between protesting Royalist citizens of Madrid and the occupying French army under (Napoléon's brother-in-law) Joachim Murat [1799 (25th July)=<1812 (7th September)]. The outcome is a French victory, with many Spanish prisoners executed the following day. Unfortunately for the French the ferocity of the clampdown undoes many months of patient diplomacy and simply spreads the uprising to the rest of Spain. [THREAD = THE SHAPING OF THE MODERN WORLD]

**WAR ART**: Check out Francisco Goya's (1814) "The Third of May, 1808".

1808 [15th June-14th August] **The First Siege of Saragossa**: This eight-week siege is fought as part of the Peninsular War [<=1807 (27th October)] between a besieging French army under Charles Lefebvre-Desnouettes [Wikipedia biography] and the Spanish garrison at Saragossa under José de Palafox y Melzi [Wikipedia biography=>20th December]. The outcome is a sustained and successful Spanish defence. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 [23rd June] **The County Asylums Act**: The British Parliament passes an Act empowering regional magistrates to commission purpose-built "county asylums" - part rehabilitation hospital/part prison - to help manage Britain's population of "pauper-lunatics" (in effect those not fit to be left roaming the streets or consigned to
workhouses but innocent of any offence worthy of incarceration in a County Jail). In the event only a handful of regional magistrates take advantage of the opportunity, the asylum at Nottingham being the first of only nine such establishments to come on stream \([=]1812 (12th February)\). [THREAD = WWI PSYCHIATRY]

1808 [8th July-18th September] Trevithick's "Steam Circus": In an attempt to capitalise on public interest in steam technology Richard Trevithick \([=]1804 (21st February)\) demonstrates his latest locomotive, "Catch Me Who Can", in a circular arena he has had erected in Euston Square, London. He spends the summer selling passenger rides at a shilling a time to adventurous Londoners. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** A replica of Catch Me Who Can is available at the Severn Valley Railway, Bridgnorth, Shropshire [website and images].

********** HISTORICALLY SIGNIFICANT BATTLE **********

1808 [16th-19th July] The Battle of Bailén: This battle is fought as part of the Peninsular War \([=]1807 (27th October)\) between a Spanish army under Generals Francisco Castaños [Wikipedia biography] and Theodor von Reding [Wikipedia biography] and an invading French army under General Pierre de l’Étang [Wikipedia biography]. The outcome is a massive French defeat. The battle is noteworthy in the present context for demonstrating that the Grande Armée can be defeated providing you are tolerably well-resourced and keep a cool head. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 [17th August] The Battle of Rolica: This battle is fought as part of the Peninsular War \([=]1807 (27th October)\) between a British/Portuguese army under Sir Arthur Wellesley [1st Duke of Wellington] [Wikipedia biography] and a much smaller French army under Henri Delaborde [Wikipedia biography]. The outcome is a British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 [21st/30th August] The Battle of Vimeiro and the Convention of Sintra: This battle is fought as part of the Peninsular War \([=]1807 (27th October)\) between a British/Portuguese army under Sir Arthur Wellesley [1st Duke of Wellington] [Wikipedia biography] and a somewhat smaller French army under Jean-Andoche Junot \([=]1807 (19th November)\). The outcome is a British/Portuguese victory, followed on the 30th August by the Convention of Sintra, a negotiated ceasefire which includes having the Royal Navy ferry Junot and 20,000 of his men back to France. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 [23rd November] The Battle of Tudela: This battle is fought as part of the Peninsular War \([=]1807 (27th October)\) between a French army under Jean Lannes [Wikipedia biography] and a Spanish army under Francisco Castaños [Wikipedia biography]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1808 [20th December-20th February 1809] The Second Siege of Saragossa: This eight-week siege is fought as part of the Peninsular War \([=]1807 (27th October)\) between a besieging French army under Bon-Adrien Jeannot de Moncey [Wikipedia biography] and the Spanish garrison at Saragossa under José de Palafox y Melzi \([=]15th June\). The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1809 Automation, Control, and Artificial Intelligence [XXVIII - The Turk (Demonstrated to an Emperor)]: [Continued from 1805 (The Turk)] Mälzel/Maelzel [1805\(<=\)1819] demonstrates his upgraded Turk to Napoléon I of France \([=]1807 (25th June)\(<=\)1809 (10th April)\) [sub-thread continues at 1810 (Maillardet) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]
ASIDE: Accounts of the event differ. The present author wonders whether Napoléon as field marshal might actually have been evaluating the device for its war-gaming potential.

********** THE RHONDDA IS DISCOVERED **********

1809 A young Welsh entrepreneur named Walter Coffin [Wikipedia biography] sinks a colliery shaft into a seam of high quality coal at Dinas [map, etc.], in the Rhondda Valley, South Wales. This will be the first of 79 mines in the Rhondda Coalfield, the last of which - Mardy - will not close as uneconomical until 1990. [THREAD = THE INDUSTRIAL REVOLUTION]

1809 [Sir]1812 Humphrey Davy [1795 (10th February)<=>1810] accidentally discovers that the passing of a spark between two carbon electrodes emits a searing white light. This discovery will subsequently be used by others in commercial "arc lights". [THREAD = THE INDUSTRIAL REVOLUTION]

ASIDE - THE ARC LIGHT IN WW1: In the pre-radar age searchlights were invaluable aids to naval warfare at night - see 1914 (1st November) and follow the onward pointers.

1809 The German poet Ludwig Uhland [Wikipedia biography] publishes a short soldiers' lament entitled Ich Hatt' einen Kamaraden [= "I had a comrade"], [THREAD = WW1 CAMERADERIE]

WAR MUSIC: Uhland's words will be set to music by Friedrich Silcher in 1829, and so perfectly sad [hear it now] is the resulting combination that it soon establishes itself as the standard German Army funeral air, much like Elgar's Nimrod is in Britain.

1809 [??th May] The 16th (Buckinghamshire) Regiment of Foot [=1782] is retitled as the 16th (Bedfordshire) Regiment of Foot [=1881]. [THREAD = THE WW1 ARMIES]

1809 [3rd January] The Retreat to la Coruña: This battle is fought as part of the Peninsular War [=1807 (27th October)] between a retreating British army under Sir John Moore [Wikipedia biography] and a pursuing French army under Jean-de-Dieu Soult [Wikipedia biography] (16th May)]. The outcome is a temporary advance but the creation of an unstable disposition of Austrian forces which will

1809 [10th April] The War of the Fifth Coalition, 1809: This war is fought as part of the broader Napoleonic Wars [=1803 (18th May)] between France and the Confederation of the Rhine [=1806 (12th July)] and a coalition of nations including Austria, Britain, and Spain. Here are the main events ... The Invasion of Bavaria, 1809; The Battle of Wagram, 1809; The Walcheren Campaign, 1809

The war (but not the Peninsular War [=1807 (27th October)], which will drag on until 1814) will end with the Treaty of Schönbrunn [=14th December],[THREAD = THE SHAPING OF THE MODERN WORLD]

1809 [10th April] The Invasion of Bavaria: This invasion takes place as the opening event in the War of the Fifth Coalition [=preceding entry] between an invading Austrian army under Archduke Charles of Austria [Wikipedia biography] and a French Army under Louis-Alexandre Berthier [Wikipedia biography] (24th June). The outcome is a temporary advance but the creation of an unstable disposition of Austrian forces which will
crumble as soon as Napoléon I of France [1809<=5th July] arrives on the scene to take personal command [continues 5th July ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1809 [19th April] The Battle of Raszyn: This battle is fought as part of the Polish Campaign of the War of the Fifth Coalition [<=10th April] between an Austrian army under Archduke Ferdinand Karl of Austria [Wikipedia biography] and a Duchy of Warsaw army under Józef Poniatowski [Wikipedia biography]. The outcome is a Polish victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

******* FIRST STEAM-POWERED SEA VOYAGE **********

1809 [??th June-5th July] Having no licence rights to compete with the Fulton-Livingston steamboat service on the River Hudson, the father-and-son Stevens team [<=1807] decide to relocate their S.S. Phoenix to the River Delaware, to serve the population of Philadelphia and its environs. This involves a sea voyage of over 500 miles, and so they enlist the help of local master-mariner Moses Rogers [no convenient biography=>1819]. After storms and technical problems Rogers gets them to their destination, thus making Phoenix the first steamboat to conquer the open sea. Phoenix will take her first fares on 5th July with a trip along the Delaware between Philadelphia and Trenton. [THREAD = THE INDUSTRIAL REVOLUTION]

******* HISTORICALLY DECISIVE BATTLE **********

1809 [5th-6th July] The Battle of Wagram: [... Continued from 10th April] This battle takes place as part of the Danube Campaign of the War of the Fifth Coalition [<=10th April] between a French/Saxon/Bavarian army under Napoléon I of France [10th April<=1810 (11th March)] and an Austrian army under Archduke Charles of Austria [<=10th April]. The outcome is a historically decisive victory for the French, with the Austrians playing no further part in the War. [THREAD = THE SHAPING OF THE MODERN WORLD]

1809 [30th July] The Walcheren Campaign: This four month invasion of Walcheren Island [map] is fought as part of the War of the Fifth Coalition [<=10th April] between a 40,000-strong British army under Lord Chatham and a combined French-Dutch army under Jean-Baptiste Bernadotte [Wikipedia biography]. The outcome is a French victory. The campaign is noteworthy in the present context as a case study in what can go wrong if a commander ignores the available intelligence, because, having been warned that Walcheren was a malaria risk, the invasion went ahead anyway, and duly suffered three fever cases for every conventional casualty. [THREAD = WW1 MILITARY MEDICINE]

1809 [12th August] The Battle of Baños: This battle is fought as part of the Peninsular War [<=1807 (27th October)] between a French army under Michel Ney [Wikipedia biography=>1810 (26th April)] and a British army under Sir Robert Wilson [Wikipedia biography]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1809 [14th October] The [1809] Treaty of Schönbrunn: This treaty between France and Austria brings the War of the Fifth Coalition [<=10th April] to an end, but only at the price of severe Austrian territorial and political concessions. . [THREAD = THE SHAPING OF THE MODERN WORLD]

1810 Automation, Control, and Artificial Intelligence [XXIX - Automata (Maillardet Again)]: [Continued from 1809 (The Turk) Maillardet’s [<=1805] latest automaton is "The Writer" [Franklin Institute demonstration on YouTube] [sub-thread continues at 1817 (Hoffmann) ...]. [THREAD = WW1 CYBERNETICS, COMPUTATION, AND FIRE CONTROL]

1810 [Sir] Humphrey Davy [1809<=>1815] replicates earlier laboratory investigations of a gas presently known as "dephlogisticated marine acid", identifying it as an element in its own right and giving it the modern name "Chlorine". [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE - CHLORINE GAS IN WW1:** See 1915 (2nd January) and 1915 (22nd April) and follow the onward links.

1810 Two more blast furnaces (making five in all) and a second blowing engine are added to the Blaenavon Ironworks [<=1799]; [THREAD = THE INDUSTRIAL REVOLUTION]

1810 The German businessman Friedrich Carl Krupp [Wikipedia biography] establishes a foundry at Essen and starts researching methods of producing crucible steel [<=1740 (Benjamin Huntsman)]. [THREADS = WW1 ARTILLERY and THE MAKING OF THE WW1 SURFACE NAVIES]

1810 The British businessman John Vivian [<=1788] founds a new copperworks at Hafod [map, etc.], Swansea. [THREAD = THE INDUSTRIAL REVOLUTION]

1810 [11th March] Eager to legitimise his reign by marrying into a historic dynasty Napoléon I of France [1809 (5th July)<=>1st July] selects as his bride the 19-year-old Archduchess Marie-Louise of Austria [Wikipedia biography], eldest daughter of Archduke Francis II of Austria [Wikipedia biography]. [THREAD = THE SHAPING OF THE MODERN WORLD]

1810 [26th April-9th July] The Siege of Ciudad Rodrigo: This 10-week siege is fought out as part of the Peninsular War [<=1807 (27th October)] between a besieging French army under Michel Ney [1809 (12th August)<=>25th July] and the Royal Spanish garrison at Ciudad Rodrigo under Don Andrés Perez de Herrasti [no convenient biography]. The outcome is a French victory, but the delay buys valuable time for the Portuguese defences. [THREAD = THE SHAPING OF THE MODERN WORLD]

1810 [27th June] Upon the death of Richard Crawshay [<=1804 (21st February)] control of the Cyfarthfa Ironworks [<=1801] passes to his grandson, William ("the Iron King") Crawshay II [Wikipedia biography]=>1924. In the ensuing decade the company will be overtaken by its business rivals up the hill at the Dowlais Ironworks [1807<=>1815] but will increase its establishment nonetheless to six blast furnaces producing 23,000 tons of iron annually. [THREAD = THE INDUSTRIAL REVOLUTION]

1810 [1st July/9th July] The French Invasion of Holland: In an attempt to wrest control from his brother Louis I of Holland [<=1806 (5th June)] Napoléon I of France [11th March<=1812 (24th June)] re-occupies the Kingdom of Holland and on 9th July incorporates it into France. [THREAD = THE SHAPING OF THE MODERN WORLD]

1810 [25th July-27th August] The Siege of Almeida: This five-week siege is fought out as part of the Peninsular War [<=1807 (27th October)] between a besieging French army under André Masséna [Wikipedia biography] and Michel Ney [26th April<=1812 (24th June)] and the British/Portuguese garrison at Almeida under William Cox [no convenient biography]. The outcome is a French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1811 Rothschild's London Bank Founded: Nathan Mayer Rothschild sets up N. M. Rothschild and Sons. [THREAD = THE WW1 FINANCIAL AND ARMAMENTS INDUSTRIES]

1811 The British businessmen Matthew Wayne, Joseph Bailey, and Crawshay Bailey take over the mothballed Nantyglo Ironworks and bring it back into production. [THREAD = THE INDUSTRIAL REVOLUTION]

1811 The Luddite Riots [I - The First Wave]: Inspired by earlier workers' riots, a gang of "frame-breakers" trashes a number of textile factories in and around Nottingham. [THREAD = THE INDUSTRIAL REVOLUTION]

1811 Battle of Albuhera: This battle is fought as part of the Peninsular Campaign of the War of the Fifth Coalition between a British/Portuguese/Spanish coalition army led by Sir William Beresford, and a French relief column led by Jean-de-Dieu Soult. After considerable bloodshed the result is a nominal victory for the coalition army. The battle is noteworthy in the present context as the engagement which won the 57th Regiment of Foot the cognomen "The Diehards" for its resolute behaviour under artillery fire. [THREAD = THE SHAPING OF THE MODERN WORLD]

WAR ART: Check out Lady Elizabeth Butler's (1897) "Steady the Drums and Fifes".

1811 The Siege of Valencia: This two-week siege is fought as part of the Peninsular War between a besieging French army under Louis-Gabriel Suchet and the Spanish garrison at Valencia under Joaquin Blake. The outcome is a crushing Spanish defeat and mass surrender. [THREAD = THE SHAPING OF THE MODERN WORLD]

1811 The Luddite Riots [II - The Second Wave]: After a quiet summer the "frame-breakers" strike again at Bulwell, Nottinghamshire, led now by a mysterious captain of convenience named "General Ned Ludd", earning themselves the nickname "Luddites". Their "spirit of disorder" will grumble away for a number of years despite a growing police presence and an increasingly hard line being taken in the courts. [THREAD = THE INDUSTRIAL REVOLUTION]

1812 John Davy synthesises a "gaseous compound of carbonic oxide and chlorine", and names it "Phosgene". [THREAD = THE SHAPING OF THE MODERN WORLD]

ASIDE - PHOSGENE IN WW1: See 1915 (19th December) and follow the onward pointers. The formal academic reference for Davy's report is...


1812 John Stevens conducts proving-ground experiments to assess the power of iron armour of different composition and thickness to resist penetration by cannon shot of different calibre, speed, and angle of impact. [THREAD = THE WW1 SURFACE NAVIES]

1812 The Estonian diplomat and inventor Pavel Schilling demonstrates a technique for the remote firing of demolition charges electrically. [THREAD = WW1 MILITARY ENGINEERING]
**ASIDE - REMOTE SHOT-FIRING:** There are now two comparatively recent methods of remote shot-firing, namely electrical [<=1750 (Benjamin Franklin) and mechanical [<=1778 (David Bushnell)], to complement the traditional method using igniferous fuse. Both electrical and mechanical are easy to turn into time-delayed detonations by using clockwork delay mechanism. Both are also easy to turn into trip-wire booby-traps by including a suitable trip mechanism.

1812 [??th February] The final Pontypool to Talybont section of the Brecknockshire Canal [<=1799 (?7th April)] is completed, connecting it to the extant Monmouthshire Canal [<=1799 (?7th April)], and creating thereby the Monmouthshire and Brecknockshire Canal. [THREAD = THE INDUSTRIAL REVOLUTION]

**ASIDE:** Known nowadays as the Brecon and Monmouthshire Canal, the de-industrialised remains of these navigations are a major Gwent tourist attraction and student resource.

1812 [??th February] The 1st (Royal) Regiment of Foot [<=1782] is retitled the 1st (Royal Scots) Regiment of Foot [>=1881]. [THREAD = THE WW1 ARMIES]

1812 [12th February] The first patients are admitted to the new General Lunatic Asylum at Nottingham, the first of the County Asylums to be built following the passing of the County Asylums Act [<=1808 (23rd June)]. [THREAD = WW1 PSYCHIATRY]

1812 [18th June] The Anglo-American War, 1812-1814: This war is fought as part of the broader Napoleonic Wars [<=1803 (18th May)] between the United States and British forces in North America. Here are the main events ... 

The Invasion of Canada, 1812; Bombardment of Fort McHenry, 1814; The Battle of New Orleans, 1815

The war will be brought to an end by the **Treaty of Ghent** [>=1814 (24th December)] and the decision on points is a draw, with Canada confirmed as a British possession. The war is noteworthy in the present context (a) as a spur to the development of a United States Navy, and (b) (more ominously) as a war started by and eventually stopped by business interests pure and simple. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [24th June] The War of the Sixth Coalition, 1812-1814: This war is fought as part of the broader Napoleonic Wars [<=1803 (18th May)] between France and its allies from time to time against a Coalition of Russia, Prussia¹, Austria, Britain, Sweden, Spain, Portugal, Sicily, and Sardinia (and after the Battle of Leipzig, 1813, Saxony, Bavaria, and Württemberg). Here are some of the major engagements ...

The Russian Campaign, 1812; The Battle of Polotsk, 1812; The Battle of Borodino, 1812; The Battle of Moscow, 1812; The Battle of Berezina, 1812; The Battle of Tauroggen, 1812; The Treaty of Kalisch, 1813; The Battle of Lutzen, 1813; The Battle of Bautzen, 1813; The Battle of Katzbach, 1813; The Battle of Leipzig, 1813; The Battle of Craonne, 1813

The war will be brought to an end by the **Treaty of Fontainbleau** [>=1814 (11th April)]. This phase of the Napoleonic Wars is noteworthy in the present context for its sheer scale. Some two and a half million troops take part, with estimates of the losses as high as two million dead. The French alone lose around 380,000 dead, plus wounded, prisoners, and deserters, in their Russian Campaign alone! [THREAD = THE SHAPING OF THE MODERN WORLD]

¹**ASIDE:** Prussia begins this war as a resentful ally of France, becomes neutral on 30th December, and joins the Coalition on 28th February 1813.
1812 [24th June] **The Russian Campaign:** In the opening event of the War of the Sixth Coalition [<=preceding entry] the Grande Armée crosses the River Neman into Russian-controlled Lithuania [<=1795 (25th November)] en route for St. Petersburg and Moscow. The invasion is masterminded by [Napoléon I of France] [1810 (1st July)<=16th August] and the defence by [Alexander I of Russia] [1807 (25th June)<=14th September]. Napoléon’s senior commanders include Marshals [Louis-Alexandre Berthier] [1809 (10th April)], [Louis-Nicolas Davout] [Wikipedia biography], [Michel Ney] [1810 (25th July)<=7th September], [Jacques MacDonald] [Wikipedia biography], and [Nicolas Oudinot] [=>17th August], and Alexander’s include [Michael Barclay de Tolly] [Wikipedia biography] and [Prince Peter Wittgenstein] [Wikipedia biography]. The St. Petersburg offensive will be blunted at the Battle of Polotsk [=>17th August] and abandoned. The Moscow offensive will "succeed" but only superficially, for the Russians will have retreated in good order waiting for the French to outreach their supply lines and the Russian counterattack, when eventually it is unleashed, will inflict a catastrophic retreat through a frozen wilderness upon them. The final outcome is a devastatingly expensive French defeat. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [12th July] **The Invasion of Canada:** This campaign of opportunistic territorial aggression by the United States is fought out as part of the Anglo-American War [<=1812 (18th June)] between a small American army under [William Hull] [Wikipedia biography] and the thinly garrisoned British possessions in Canada. The campaign will ebb and flow without a final decisive engagement until early 1814 whereupon the ending of the Peninsular War [<=1807 (27th October)] frees up some of the British Army’s most experienced troops and allows Canada to be cleared and secured. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [22nd July] **The Battle of Salamanca:** This battle is fought as part of the Peninsula War [1808 (21st August)<=1815] between a British/Portuguese/Royalist Spanish army under [Sir Arthur Wellesley [1st Duke of Wellington]1814 ] [1808 (21st August)<=1815] and a French/Republican Spanish army under [Auguste de Marmont] [1800 (14th June)<=1814 (30th March)] and [Bertrand Clausel] [Wikipedia biography]. The outcome is a decisive British victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [16th-18th August] **The Battle of Smolensk:** This battle is fought between the Grande Armée under [Napoléon I of France] [16th August<=14th September], [Michel Ney] [24th June<=26th November], and [Joachim Murat] [<=1808 (2nd May)] and a Russian army under [Mikhail Kutuzov] [Wikipedia biography] and [Pyotr Bagration] [Wikipedia biography]. The outcome is a French victory, but ominously the Russians continue to retreat toward Moscow, destroying everything of potential value to the advancing French as they go. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [17th-18th August] **The Battle of Polotsk:** This battle is fought as part of the St. Petersburg element of the Russian Campaign of the War of the Sixth Coalition [<=24th June] between a French army under [Nicolas Oudinot] [Wikipedia biography] and a Russian army under [Prince Peter Wittgenstein] [24th June<=26th November]. The outcome is indecisive but expensive enough for both sides to decide to withdraw and consolidate. As such this counts as a major strategic defeat for the French, whose drive on St. Petersburg will in effect stop here. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [7th September] **The Battle of Borodino:** This battle is the first pitched battle in the Russian Campaign of the War of the Sixth Coalition [<=24th June]. It is fought between the Grande Armée under [Napoléon I of France] [16th August<=14th September], [Michel Ney] [24th June<=26th November], and [Joachim Murat] [<=1808 (2nd May)] and a Russian army under [Mikhail Kutuzov] [Wikipedia biography] and [Pyotr Bagration] [16th August<=dies of wounds 24th...
September], and Michael Barclay de Tolly [16th August<=1813 (29th August)]. The outcome on the day is a very bloody draw, followed by a renewed Russian retreat to force the French to stretch their supply lines even more. The battle is noteworthy in the present context for its sheer scale, with total casualties estimated at around 70,000 (comparable, therefore, with the first day of the Somme). [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [14th September] The Entry into Moscow: Napoléon I of France [7th September<=26th November] leads his troops into the abandoned city of Moscow only to discover that that Alexander I of Russia [24th June<=1813 (16th October)] has no intention of following the normal protocol that you surrender once your capital city has been occupied. With empty bellies and nothing to celebrate the French torch the city and set off back the way they came. This event marks the high-water mark of the 1812 French invasion of Russia. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [26th-29th November] The Battle of Berezina: This battle is fought as part of the Russian Campaign of the War of the Sixth Coalition [<=23rd June] between a French army under Napoléon I of France [14th September<=1813 (2nd May)], Nicolas Oudinot [17th August<=1813 (23rd August)], Claude Victor-Perrin [<=1807 (14th March)], and Michel Ney [7th September<=1813 (20th May)] and a Russian army under Pavel Chicagov [Wikipedia biography] and Prince Peter Wittgenstein [17th August<=1813 (2nd May)]. The French are trying to cross the Berezina River near Barisaw in Belorussia. Having already positioned troops west of the river the Russians are harassing the French from all sides. The outcome is that the French manage to get about half of their remaining strength (perhaps 50,000 men) back across the river, with Marshal Ney reportedly being the last Frenchman back across the river. The battle is noteworthy in the present context for the success of the French field engineers under Jean-Baptiste Eblé [Wikipedia biography] in constructing a 100-metre pontoon bridge more or less from scratch and under fire. Two weeks later the French - now down to only 22,000 men - will be out of Russia altogether. [THREAD = THE SHAPING OF THE MODERN WORLD]

1812 [30th December] The Treaty of Tauroggen: This treaty-in-the-field between Prussia and Russia sees the Prussian army switch its allegiance from France to the Coalition. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** MAJOR SOCIO-ECONOMIC EXPERIMENT **********

1813 The New Lanark Experiment: Having disagreed with past business partners Robert Owen [1799 (?7th September)<=1817] arranges to have them bought out by more progressive investors. This allows him to introduce adventurous new schemes for improving working conditions, social welfare systems, and education at the New Lanark mill complex. He explains his ideas in an essay entitled "A New View of Society". [THREAD = THE SHAPING OF THE MODERN WORLD]

1813 [28th February] The Treaty of Kalisch: [... Continued from 1812 (30th December)] This treaty arranges for Prussia to join the War of the Sixth Coalition on the Coalition side. [THREAD = THE SHAPING OF THE MODERN WORLD]


1813 [17th March] The Prussians declare war on France. [THREAD = THE SHAPING OF THE MODERN WORLD]
1813 [21st April] Frederick William III of Prussia [1807<=d.1840 (7th June)] awards the first Iron Cross - a newly minted Prussian award for bravery - to one Karl von Börcke. [THREAD = WW1 HONOURS AND DECORATIONS]

1813 [2nd May] **The Battle of Grossgörschen/Lützen:** This battle is fought as part of the North German Campaign of the War of the Sixth Coalition [<=1812] between a three-pronged French advance across southern Germany towards Leipzig, and the armies of Russia and Prussia commanded by **Prince Peter Wittgenstein** [1812 (26th November)<=20th May] and **Gebhard von Blücher** [Wikipedia biography] =>20th May, respectively. The French columns are commanded by **Napoléon I of France** [1812 (26th November)<=20th May] and **Jean-de-Dieu Soult** [1811 (16th May)<=20th May]. The outcome is a French victory, albeit with disproportionately heavy casualties. [THREAD = THE SHAPING OF THE MODERN WORLD]

1813 [20th-21st May] **The Battle of Bautzen:** This battle is fought as part of the North German Campaign of the War of the Sixth Coalition [<=1812] between an 115,000-man French army under **Napoléon I of France** [2nd May<=4th June], **Michel Ney** [1812 (26th November)<=6th September], and **Jean-de-Dieu Soult** [2nd May<=1814 (6th April)] and a 96,000-man Prussian/Russian army under (the Prussians) **Gebhard von Blücher** [2nd May<=26th August] and (the Russians) **Prince Peter Wittgenstein** [2nd May<=29th August]. The outcome is a French victory on the day but a major strategic setback in the sense that the Coalition army manages to retreat in tolerably good order. [THREAD = THE SHAPING OF THE MODERN WORLD]

1813 [4th June-16th August] **The Ceasefire of Pleischwitz: Napoléon I of France** [20th May<=26th August] agrees to a seven-week ceasefire. He will live to regret this decision, judging in retrospect that the Coalition benefited more from the breathing space than did his own troops. [THREAD = THE SHAPING OF THE MODERN WORLD]


1813 [26th August] **The Battle of Katzbach:** This battle is fought as part of the North German Campaign of the War of the Sixth Coalition [<=1812 (23rd June)] between a 102,000-man French army under **Jacques MacDonald** [Wikipedia biography] and a 114,000-man Coalition army of Russians and Prussians under **Gebhard von Blücher** [2nd May<=26th August] and (the Russians) **Prince Peter Wittgenstein** [2nd May<=29th August]. The outcome is a French defeat. [THREAD = THE SHAPING OF THE MODERN WORLD]

1813 [26th-27th August] **The Battle of Dresden:** This battle is fought as part of the North German Campaign of the War of the Sixth Coalition [<=1812 (23rd June)] between a 135,000-man French army under **Napoléon I of France** [4th June<=16th October] and a 214,000-man Austrian/Prussian-Russian army under **Prince Karl Schwarzenberg** [Wikipedia biography]=>29th August]. The outcome is an against-the-odds French victory with highly disproportionate Coalition casualties. [THREAD = THE SHAPING OF THE MODERN WORLD]

1813 [29th-30th August] **The Battle of Kulm/Chlumec:** This battle is fought as part of the North German Campaign of the War of the Sixth Coalition [<=1812 (23rd June)] between a French army under **Dominique Vandamme** [Wikipedia biography] and a Russian/Prussian/Austrian army under **Michael Barclay de Tolly** [1812 (7th September)<=16th October], **Prince Peter Wittgenstein** [=20th May], and **Prince Karl Schwarzenberg** [26th
1813 [6th September] **The Battle of Dennewitz:** This battle is fought as part of the North German Campaign of the War of the Sixth Coalition [<=1812 (23rd June)] between a French army under Michel Ney [20th May<=>1814 (6th March)] and Nicolas Oudinot [<=23rd August] and a Prussian/Russian army under Prince Charles John of Sweden [<=23rd August]. The outcome is a coalition victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** HISTORICALLY SIGNIFICANT BATTLE **********

1813 [16th-20th October] **The Battle of Leipzig:** This battle is fought as part of the War of the Sixth Coalition [<=1812 (23rd June)] between a French army under Napoléon I of France [26th August<=>1814 (6th March)] personally and a Coalition army under Alexander I of Russia [1812 (14th September)<=>1814 (30th March)], Michael Barclay de Tolly [29th August<=>1814 (30th March)], and Gebhard von Blücher [26th August<=>1814 (6th March)]. The outcome is a historically decisive Coalition victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** THE GREAT GAME BEGINS **********

1813 [24th October] **The Treaty of Gulistan:** This treaty brings the Russo-Persian War [<=1804] to a formal end. It is noteworthy in the present context for being the first move in what will shortly become known as "the Great Game", a century-long battle of wits, cunning, espionage, and deception between the British and Russian Empires. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** TWO MAJOR ADVANCES IN BALLISTICS FOLLOW **********

1814 The British-born American gunsmith Joshua Shaw [Wikipedia biography] develops the **percussion cap**, a small iron (later copper) capsule containing a few grains of impact-sensitive fulminated mercury [<=1800 (Edward Howard)]. [THREAD = WW1 SMALL ARMS]

KEY FIREARMS DEVELOPMENT - THE "CAPLOCK": Percussion caps were designed to fit over a small raised nipple drilled through into the firing chamber [YouTube video]. The British Army adopted the technology in 1834 having established under test that the misfire rate for caplocks was about one thirtieth that of flintlocks [922 misfires out of 6000 attempts for the flintlock, against only 36 out of 6000 for the caplock] (Howey, 1999 online). However the sheer number of flintlocks already in issue meant that they would still be in operational use in the American Civil War.

ASIDE - THE PERCUSSION CAP IN WW1: The percussion cap was gradually integrated into prefabricated cartridges, firstly of paper [=>1836 (Dreyse Needle Gun)] and then of brass [=>1873 (Winchester Model 1873); 1874 (Fusil Gras M80)], and in this latter form fired every bullet used in WW1.

********** ANALOG COMPUTING IS BORN **********

1814 The Bavarian land surveyor Johann M. Hermann [no convenient biography] devises an instrument to help him compute the area within an irregular boundary contour. The instrument consists of a pen, linkages, a cone, a wedge, and a display dial, so assembled that the pen can be traced around a horizontal scaled drawing of the
boundary contour in question, constantly transmitting its movement in the x and z dimensions via the linkages, the cone, and the wedge to the dial, which has conveniently already been calibrated to display the computed area.

**STUDENT EXERCISE:** For a better understanding of how the linked movements of the various components somehow perform the necessary mathematics study the Barbara Haerlin (2013) animation on YouTube.

Hermann names his invention the "planimeter" [Wikipedia factsheet] and planimeters are noteworthy in the present context because they are an early instance of an "analog computing" device, and analog computers directed the main armament on all WW1 battleships. [THREADS = WW1 COMPUTATION and THE WW1 SURFACE NAVIES]

**ASIDE - ANALOG COMPUTING IN WW1:** Start with Arthur H. Pollen's work with the "Argo clock" [=1901] and follow the onward pointers. For a longer introduction to computation in ballistics and to analog computing devices in general see the Companion Resource. (Section 2). For more on the development of planimeters between 1814 and 1914 see Care (reference follows).


1814 [6th March] **The Battle of Craonne:** This battle is fought as part of the War of the Sixth Coalition [=<1812 (23rd June)] between a French army under Napoléon I of France [1813 (16th October)] and Michel Ney [1813 (6th September)] and a significantly smaller Prussian/Russian army under Gebhard von Blücher [1813 (16th October)] and Mikhail Vorontsov [Wikipedia biography]. The outcome is a with-the-odds French victory. [THREAD = THE SHAPING OF THE MODERN WORLD]

**ASIDE - CRAONNE IN WW1:** The plateau of Craonne will feature a century later in the Battle of the Chemin des Dames [=1917 (6th May)].

1814 [30th March-2nd April] **The Battle of Paris:** This battle is fought as part of the end-stage Campaign of the War of the Sixth Coalition [=<1812 (23rd June)] between a 155,000-man Russian/Austrian/Prussian army under Alexander I of Russia [1813 (16th October)] and Michael Barclay de Tolly [=1813 (16th October)], Prince Karl Schwarzenberg [=1813 (29th August)], and Gebhard von Blücher [6th March<=>1815 (16th June)] and the French defenders around Paris under Auguste Marmont [=1812 (22nd July)]. The defences hold out for 24 hours before surrendering and there follows some hasty politicking during which the French Senate formally deposes its Emperor. [THREAD = THE SHAPING OF THE MODERN WORLD]

1814 [6th April-13th April] **The Treaty of Fontainebleau and the Bourbon Restoration:** Having already been deposed in principle by the French Senate in Paris [=preceding entry], Napoléon I of France [6th March<=>1st November] indicates his willingness to abdicate, signing the necessary papers on 13th April. The Coalition nations then propose Louis XVIII of France [Wikipedia biography] as the rightful restored king of France and equip him with a new constitution, the "Charter of 1814". The new monarchy will last until the July Revolution [=1830 (26th July)]. Convinced by Michel Ney [6th March<=>1815 (1st March)] and Jean-de-Dieu Soult [1813 (20th May)<=>1815 (1st March)] that they will henceforth be loyal to the monarchy Louis duly elevates the former to the peerage and on 3rd December makes the latter Minister of War. Napoléon is exiled to the Isle of Elba, mid-way between Corsica and the Italian mainland, and there he will stay - but not for long [continues 1815 (1st March) ...]. [THREAD = THE SHAPING OF THE MODERN WORLD]
1814 (30th May) **The First Treaty of Paris:** This treaty between France and the nations of the Sixth Coalition (<=1812 (23rd June)) brings the War of the Sixth Coalition to an end but calls for more far-reaching discussions on how best to maintain the peace (continues 1815 (1st November) ...). [THREAD = THE SHAPING OF THE MODERN WORLD]

1814 (13th August) **The Anglo-Dutch Treaty:** This treaty between Britain and the United Netherlands returns to the Dutch the overseas possessions which Britain had garrisoned during the Napoleonic Wars, except for the Cape of Good Hope and the separate settlements in that which by this treaty becomes, and will remain until 1966, British Guiana (= the modern Guyana). One unexpected impact of this treaty did not emerge until the mid-1890s, when a loosely defined clause concerning the border along the Esequiba River nearly caused a war between Britain and the United States - check out the full story.

1814 (13th-14th September) **The Bombardment of Fort McHenry:** This engagement takes place as part of the Anglo-American War (<=1812 (18th June)) between a British assault fleet under **Sir Alexander Cochrane** [Wikipedia biography] and **Arthur Brooke** [Wikipedia biography], advancing up Chesapeake Bay towards Baltimore, MD, and the American defenders of that city under **Samuel Smith** [Wikipedia biography]. Commanded by **George Armistead** [Wikipedia biography], Fort McHenry is situated on Locust Point with a clear field of fire down the approaches, and therefore has to be neutralised before the assault ships can disembark their troops. The British fleet includes five bomb ketches and the sloop **HMS Erebus** [Wikipedia shipography], converted to carry Congreve rockets (<=1804). This force bombards Fort McHenry all night long, but on the morning of 14th September Armistead signals his continued defiance by raising the Stars and Stripes through the smoke. Having sustained greater losses than the defenders the British call off the attack. [THREAD = THE SHAPING OF THE MODERN WORLD]

**WAR MUSIC:** The sight of Armistead's flag rising through the smoke of the bombardment inspired verse #1 of the American national anthem [hear it now].

1814 (1st November) **The Congress of Vienna:** [... Continued from 30th May] With **Napoléon I of France** (6th April =>1815 (1st March)) safely (or so it seems) imprisoned on Elba, the four victorious nations convene a seven-month peace congress in Vienna. The initial delegations are led by the Austrian foreign minister **Prince Klemens von Metternich** [Wikipedia biography], the British foreign secretary **Robert Stewart, Lord Castlereagh** [Wikipedia biography], the Russian foreign minister **Count Karl Nesselrode** [Wikipedia biography], and the Prussian chancellor **Prince Karl von Hardenberg** [Wikipedia biography]. The losing nation, France, is represented by her foreign minister **Charles Talleyrand-Périgord** [Wikipedia biography]. There are also some 200 other representatives from Europe's lesser states and principalities. Save for a break during Napoléon's Hundred Days comeback (=>1815 (20th March)), the congress will deliberate until the following summer (=>1815 (9th June)). [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 The Psychologies of War [I - The Romanticisation of Death (Assyrian Style)]: [New sub-thread] [Readers unfamiliar with the best-guess actual events surrounding Sennacherib's siege of Jerusalem should pre-read the entry at 701BCE.] The British poet **Lord Byron** [Wikipedia biography] publishes a poem entitled "The Destruction of Sennacherib" [full text online], an account of Sennacherib's unsuccessful (in this telling of the story) 701BCE siege of Jerusalem. The poem opens with the often-quoted line: "The Assyrian came down like the wolf on the fold". The poem is noteworthy in the present context for illustrating the role of historical record as national propaganda (sub-thread continues at TBA ...). [THREAD = MAINSTREAM MILITARY HISTORY] [THREAD = THE BATTLE FOR HEARTS AND MINDS] [THREAD = WW1 ROMANTIC NATIONALISM]
1815 Sir Humphrey Davy [<810] demonstrates what will become popularly known as the "Davy Lamp", a gauze-caged flame lantern suitable for safe use in the otherwise explosive atmospheres of coal mines. Across the Atlantic, meanwhile, one Jehaziél Sherman [no convenient biography] opens a steamboat service on Lake Champlain, VT. Like the Stevens team before him [<807] his boat is named Phoenix. [THREAD = THE INDUSTRIAL REVOLUTION]

1815 John Josiah Guest [<807] is now the majority shareholder in the Dowlais Ironworks [<807]. The works now adds its sixth and seventh blast furnaces, putting production up to 15,600 tons a year. [THREAD = THE INDUSTRIAL REVOLUTION]

1815 [7th-8th January] The Battle of New Orleans: This battle is fought during the Anglo-American War [<812 (18th June)] between a British expeditionary force under Sir Edward Pakenham [Wikipedia biography=dies this battle], intent on capturing the city of New Orleans and thereby denying the Americans free use of the Mississippi River, and the defending Americans under Andrew Jackson [Wikipedia biography]. For a blow-by-blow account of the battle see the Companion Resource. The outcome, as one day a song will have it, is that the British come off "rather ignominiously". [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 [1st March] Napoléon Makes a Comeback: In order to save the French people from "the slavery into which priests and nobles would plunge them", Napoléon I of France [1814 (1st November)<=>20th March], having escaped his jailers on the Isle of Elba and gathered a 1000 man band of loyal followers, now lands at Cannes. Veterans of his earlier campaigns flock to his colours and with a growing army they head for Paris. On 11th March, the recently appointed Royalist Minister of War, Jean-de-Dieu Soult [1814 (6th April)<=>22nd June] is appointed instead Napoléon's Chief of Staff and on 18th March Michel Ney [1814 (6th April)<=>15th June], sent to Auxerre with an army to arrest him, joins forces with him instead! The army is cheered into Paris on 20th March. [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 [6th March] The Corn Bill, 1815: Finding themselves out of pocket by "no less than [GBP20 million]" as a result of the Napoleonic Wars the British Parliament debates a Bill to set an artificial and high price for grain. [THREAD = THE SHAPING OF WW1 EUROPE]

1815 [20th March] The War of the Seventh Coalition, 1815: [A.k.a "The Hundred Days"] This battle is fought as part of the broader Napoleonic Wars [<803 (18th May)] between the resurgent Republican French armies of Napoléon I of France [1st March<=>9th June] and the frantically remobilising Coalition armies under Sir Arthur Wellesley, 1st Duke of Wellington [1812 (22nd July)<=>18th June]. The two sides then jostle for local advantage for three months until a short campaign at Waterloo [=>15th June] settles Napoléon's fate once and for all. [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 [10th April] Mount Tabora Eruption: A major volcanic eruption at Mount Tabora, Indonesia, ejects an estimated 160 cubic kilometers of magma as ash into the atmosphere, causing a worldwide volcanic winter for several harvests. [THREAD = THE SHAPING OF WW1 EUROPE]

ASIDE - SERBIA IN WW1: Not only does WW1 start in Serbia but the Serbs also maintain an active sector of the Balkan Front until 1918, suffering some 320,000 casualties in so doing [=1914 (28th June) and follow the onward pointers].

1815 [9th June] The Treaty of Vienna: [...] Continued from 1814 (1st November) Presuming that Napoléon I of France [20th March<=15th June] will shortly be dealt with, the delegates at Vienna hastily formalise their vision of post-Napoleonic Europe. Here are some of the final points of agreement ...

- The Duchy of Warsaw is disbanded and replaced with "Congress Poland" (properly the Kingdom of Poland), with Alexander I of Russia [1814 (30th March)<=d.1825 (1st December)] parachuted in as its first king
- Austria is awarded Tuscany and Modena
- Russia is awarded Poland and Finland
- Prussia is awarded parts of Poland, Saxony, and the Rhineland, doubling her population at a stroke

ASIDE: The ceded Rhineland includes the nascent industrial heartland of the Rühr - previously in the non-Prussian German state of Westphalia - turning Prussia into an industrial nation overnight.

- A United Kingdom of the Netherlands is established under the House of Orange-Nassau
- Denmark is awarded Pomerania
- A Grand Duchy of Luxembourg is established [=1839 (Treaty of London)]

********** GERMAN UNIFICATION ON THE CARDS **********

- Negotiations begin to form a new "German Confederation" to bring together not just the non-Prussian Germans of the old Confederation of the Rhine [=1806 (12th July)] but now also the Prussians and the Austrians as well [continues at 1820 (15th May) ...].

It remains only to defeat Napoléon for it all to come about. [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 [15th June] Napoléon Makes his Move: The British have been mobilising around the Channel port of Ostend, the Prussians likewise along the Meuse Valley between Namur and Liège. In an attempt to stop these two armies joining forces the French suddenly move northward out of Charleroi, heading for Brussels. Napoléon I of France [9th June<=16th June] divides his army into three columns, sending 20,000 men under Michel Ney [1st March<=16th June] along the direct Charleroi-Brussels road to distract the most advanced British units. He personally leads 68,000 men along the Charleroi-Ligny road to their east to deal more decisively with the Prussians, while a 33,000-man army under Emmanuel de Grouchy [Wikipedia biography] is held in reserve for the time being. [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 [16th June] The Battles of Quatre Bras and Ligny: These battles are fought as part of the War of the Seventh Coalition [=20th March]. At Quatre Bras Michel Ney [15th June<=18th June] fails to break the British hold on the tactically important "Four Arms" crossroads. At Ligny, however, some six miles to the south-east, Napoléon I of France [15th June<=18th June] engages the 84,000-man Prussian army under Gebhard von Blücher [1814 (30th March)<=18th June] and eventually drives them from the field with disproportionately high casualties. Fortunately for the Coalition, August von Gneisenau [=1807 (8th October)] has the presence of mind to organise the withdrawal to stay as close to the British as possible rather than simply moving away from the French, selecting the town of Wavre, 10 miles to the north, as a suitable rallying point (and thereby possibly winning the Battle of Waterloo for the Coalition two days before it is fought). The British fall back toward the village of Waterloo to keep touch with the Prussians. Disappointed with both their achievements, Ney and Napoléon start to
bring their two columns back together for a final showdown, while Emmanuel de Grouchy [15th June<=18th June] and his three reserve corps are sent off toward Wavre to pursue the Prussians. [THREAD = THE SHAPING OF THE MODERN WORLD]

1815 [18th June] **The Battle of Waterloo:** This battle is fought as the final substantive engagement of the War of the Seventh Coalition [<=20th March] (and therefore also of the broader Napoleonic Wars [<=1803 (18th May)]) between a 72,000-man French army under Napoléon I of France [16th June<=22nd June] and Michel Ney [16th June<=22nd June] and a 118,000-man British/Prussian army under Sir Arthur Wellesley, 1st Duke of Wellington [20th March<=1828 (28th January)] and Gebhard von Blücher [<=16th June]. Wellington holds the Mont St. Jean, an east-west ridge of high ground just south of Waterloo, making it possible for him to manoeuvre his troops to the left or right without showing themselves. He also has three prepared strongpoints out on the south-facing slope. To his right (when looking south) he has the chateau/park at Hougoumont, to his left the village of Papelotte. These two strongpoints make it very difficult for the French to outflank him. In the centre he has fortified a complex of farm buildings and sandpits at La Haye Saint. The battle begins in the late morning with a sustained French attack on Hougoumont, with wave after wave of French pulling in unit after unit of the Coalition reserves. The battles in the centre and on the French right begin some two hours later, with units on the far right making the best progress. Wellington commits his heavy cavalry against these while Ney launches a successful attack against La Haye Saint in the centre. Around this time Emmanuel de Grouchy [<=16th June] engages the Prussian supply-head at Wavre, but - crucially - Blücher's frontline troops have already moved forward to protect Wellington's left flank at Waterloo. Indeed the arrival of the Prussians apparently takes Napoléon by surprise, too, forcing him to commit all his remaining line infantry reserves to hold them off, and leaving him with only the Imperial Guards for one last roll of the dice in support of Ney's gains in the centre. The Imperial Guards are committed around 7.30pm., numbering some 3000 men and drawn from elite Grenadier regiments, but it is too little too late and when they retire in disorder shortly afterward Wellington orders a general Coalition advance. The outcome is a historically conclusive Coalition victory, shattering Napoléon's Grand Armée once and for all, and leaving the road open for a largely uncontested advance toward Paris. [THREAD = THE SHAPING OF THE MODERN WORLD]

**WAR VIDEO:** Check out Sergey Bondarchuk's (1970) movie "The Battle of Waterloo" [YouTube full length video] (made before the days of computer-generated imagery using 17,000 Russian Army extras).

1815 [22nd June/8th July] **The Second Abdication:** With the victors of Waterloo advancing on Paris Napoléon I of France [18th June<=15th July] announces his re-abdication and goes into hiding to avoid being re-exiled. Michel Ney [18th June<=d.7th December] will be arrested on 3rd August, tried for treason, and executed by firing squad on 7th December. Jean-de-Dieu Soult [1st March<=1832 (11th October)] is exiled and will return to politics in due course to become Prime Minister of France. [THREAD = THE SHAPING OF THE MODERN WORLD]

********** NAPOLÉON IDENTIFIES THE PROBLEM **********

1815 [15th July] Napoléon I of France [22nd June<=d.1821 (5th May)] finally surrenders himself to the captain of HMS Bellerophon, one Frederick L. Maitland [Wikipedia biography], who takes him to Plymouth. Here it is resolved to exile him to the Island of St. Helena in the South Atlantic, this being about as far from anywhere as you can get, and he is duly transferred to HMS Northumberland to be taken there. During his three weeks in Maitland's custody, the two men have plenty of time to exchange anecdotes, which
Maitland reproduces in his memoirs after his retirement. Napoléon's reflections upon common soldiery include the succinct observation that soldiers "will fight long and hard for a bit of coloured ribbon"; and as an expert at getting men to offer their lives for him this assertion deserves to be taken very seriously. [THREAD = HUMANKIND AT WAR]

**ASIDE - COLOURED RIBBON IN WW1:** We have already introduced the problem of the purpose of medals [<=1170] and in due course [=>2007 (Psychology of Pride)] will be considering the truth of Napoléon's assertion insofar as WW1 is concerned.

1815 [20th August] Authorised by the County Asylums Act, 1808, the Bethlem Hospital opens for mentally ill patients at St. George's Fields, Southwark, London. [THREAD = WW1 PSYCHIATRY]

**ASIDE - BETHLEM HOSPITAL IN WW1:** The Bethlem Hospital survives as the Bethlem Royal Hospital, a psychiatric institution within the South London and Maudsley NHS Trust. As such its WW1 archives have been included in that Trust's WW1 Discovery Project [website].

1815 [20th November] The Second Treaty of Paris: This treaty between France and the four main Coalition powers - Austria, Britain, Prussia1, and Russia - confirms the agreements already reached in the First Treaty of Paris [<=1814 (30th May)] and the Treaty of Vienna [<=9th June] and thereby brings the Napoleonic Wars [<=1803 (18th May)] to an end. [THREAD = THE SHAPING OF THE MODERN WORLD]

1ASIDE: Note that Europe's main powers now include Prussia for the first time. Remarkably it is only nine years [<=1806 (14th October)] since Prussia was a broken state with superpowers on three sides and water on the fourth. Her emergence from the ruins rests solely on the military reforms crafted by Gerhard von Scharnhorst [<=1807 (8th October)] (and certain of these have yet to take effect).

********** 1764-1815 SUMMARISED **********
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Much has changed in the fifty years reported herein, even though those years fit (with room to spare) into the reign of Britain's longest-serving male monarch (the aforementioned George III). The period has seen Britain lose one major overseas possession (the United States) but expand two others (Canada and India), increasingly relying on the Royal Navy to protect her trade routes. France, on the other hand, has been bled white on the field and hog-tied politically off it, and it will take a generation and a second revolution [=>1830] for her to return properly to the world stage. The Ottoman Empire has been losing ground against the Christian west but is not yet psychologically prepared to modernise. The ethnic Poles are still on the scene but no longer as an independent nation having been passed back and forth between France, Prussia, and Russia. Presently they exist as "Congress Poland" [<=1815 (9th June)], with Alexander I of Russia as their king. Indeed the Russians no longer need to share with France their 1807 plans [<=1807 (25th June)] for expansion south-eastward toward India, for she is ready to start playing the "Great Game" [<=1813] on her own. Prussia, too, has saved her best for last. She began as a promising newcomer only to be severely dealt with by the French and the Austrians. Now, thanks to the Treaty of Vienna, she has become the loudest voice of all the Germans, and the most vigorous sense of national purpose. And as for the United States we find her just beginning to realise that she had as much to gain from seeking influence in the outside world as exploiting her own internal resources. On top of all this the industrial and scientific revolutions are gathering pace, fuelled by (and fuelling) the
emergence of new and highly vocal labouring class. With WW1 now less than a hundred years hence these kings and these things now lurch forward into an uncertain future ...

********** Sorry, but this file's gotten too big to handle **********