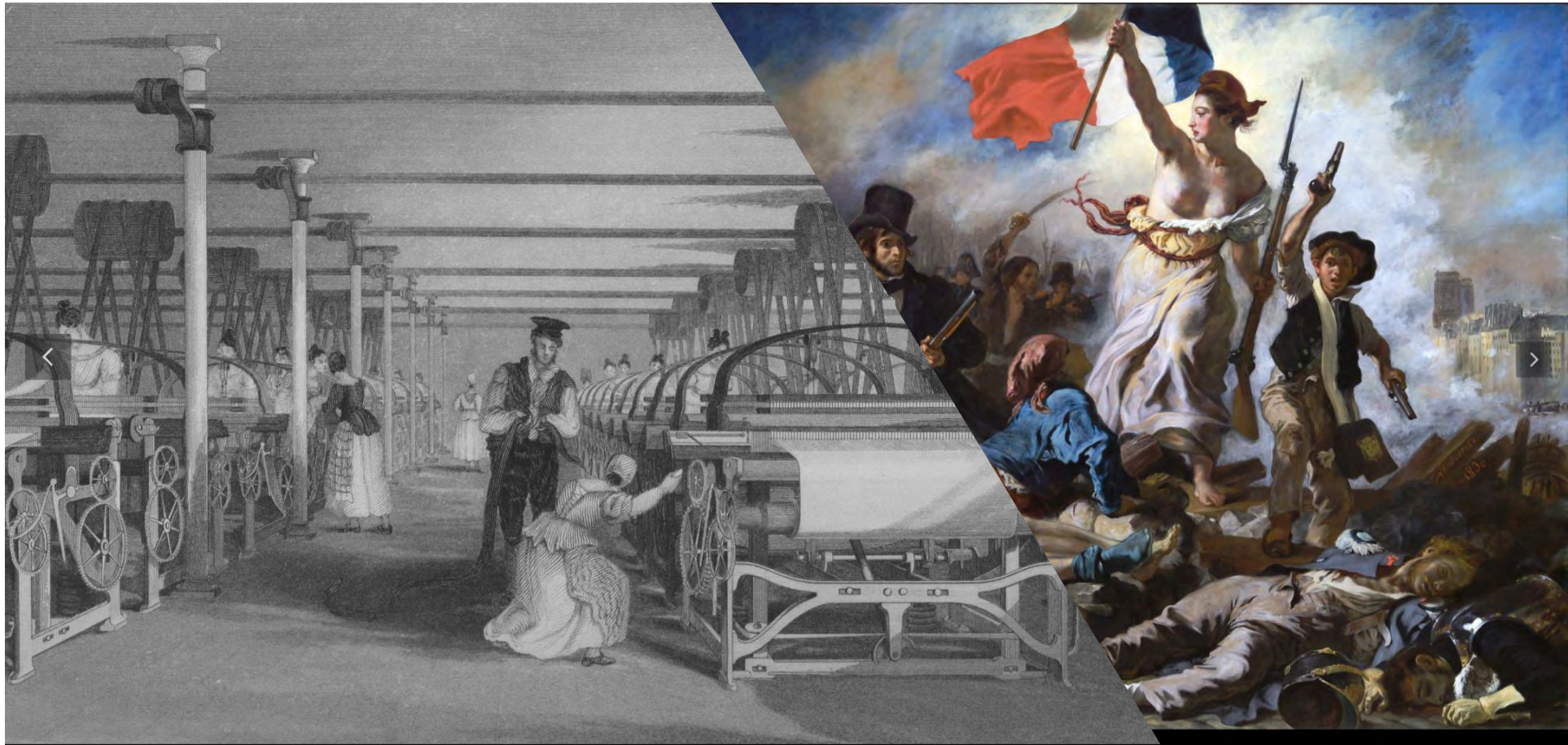


The Century of Peace

Vassar LLI

Class Six



Second Industrial Revolution 1870-1914

- Built on earlier coal, steel and rail growth
- Initially prominent in Britain, expanded next to Belgium, France and Germany, later Russia
- Germany competed strongly with Britain, exceeding it in steel production by the 1880s and led in chemicals
- France modernized its textile, chemical and engineering sectors
- Belgium became a center of coal mining and heavy industry

Bessemer Converter

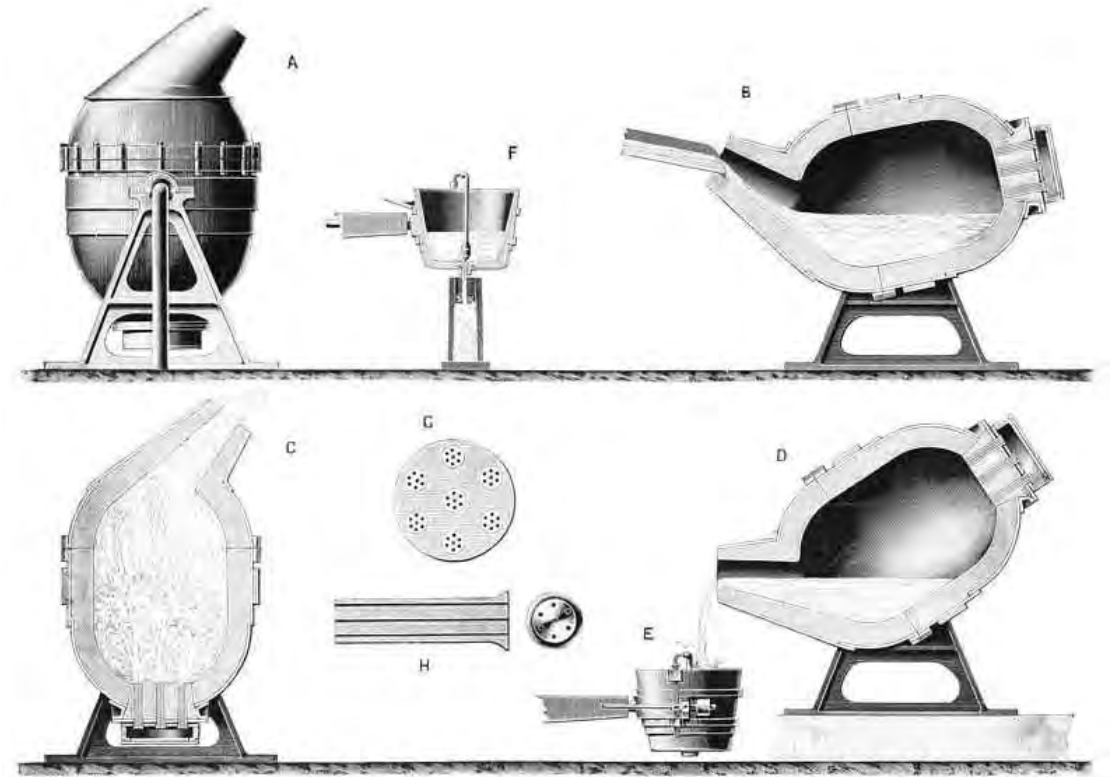
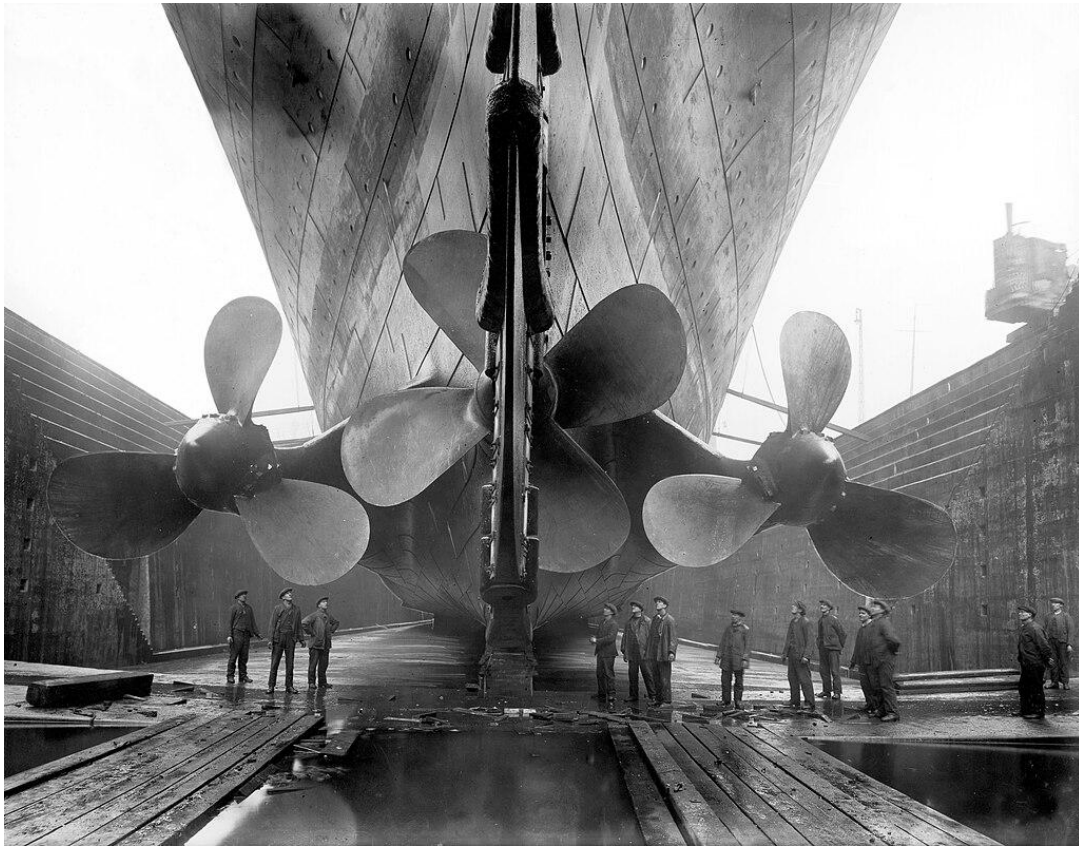


FIG. 43. THE FIRST FORM OF BESSEMER MOVEABLE CONVERTER AND LADLE



**Propellers of
the RMS Olympic
in 1911**



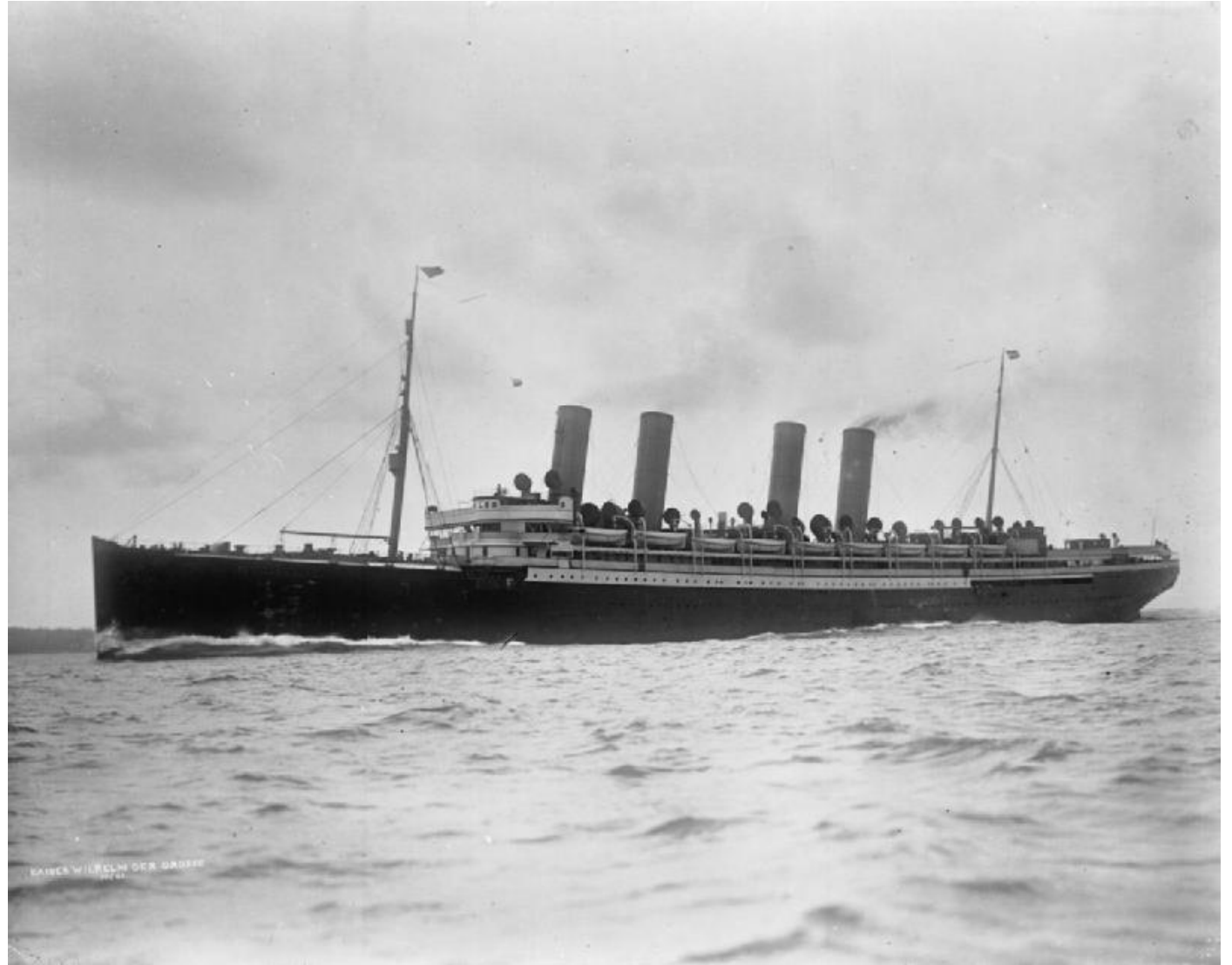
**BASF
Chemicals
Germany
1881**



**Rolling Mill in Donetsk,
Eastern Ukraine 1887**

SS Kaiser Wilhelm der Grosse

- In service from 1897 to 1914, when she was scuttled in battle
- She was the largest ship in the world for a time
- Held the Blue Riband for the fastest passenger liner crossing of the Atlantic Ocean, until:
- Cunard's Lusitania in 1907



Communications Across the World

- Loading the transatlantic cable onto a storage compartment in the Great Eastern steamship (1865)
- From this point onwards, almost instantaneous global communication became possible
- Time-zones were introduced and the International Date Line accepted at the Washington Conference in 1884.

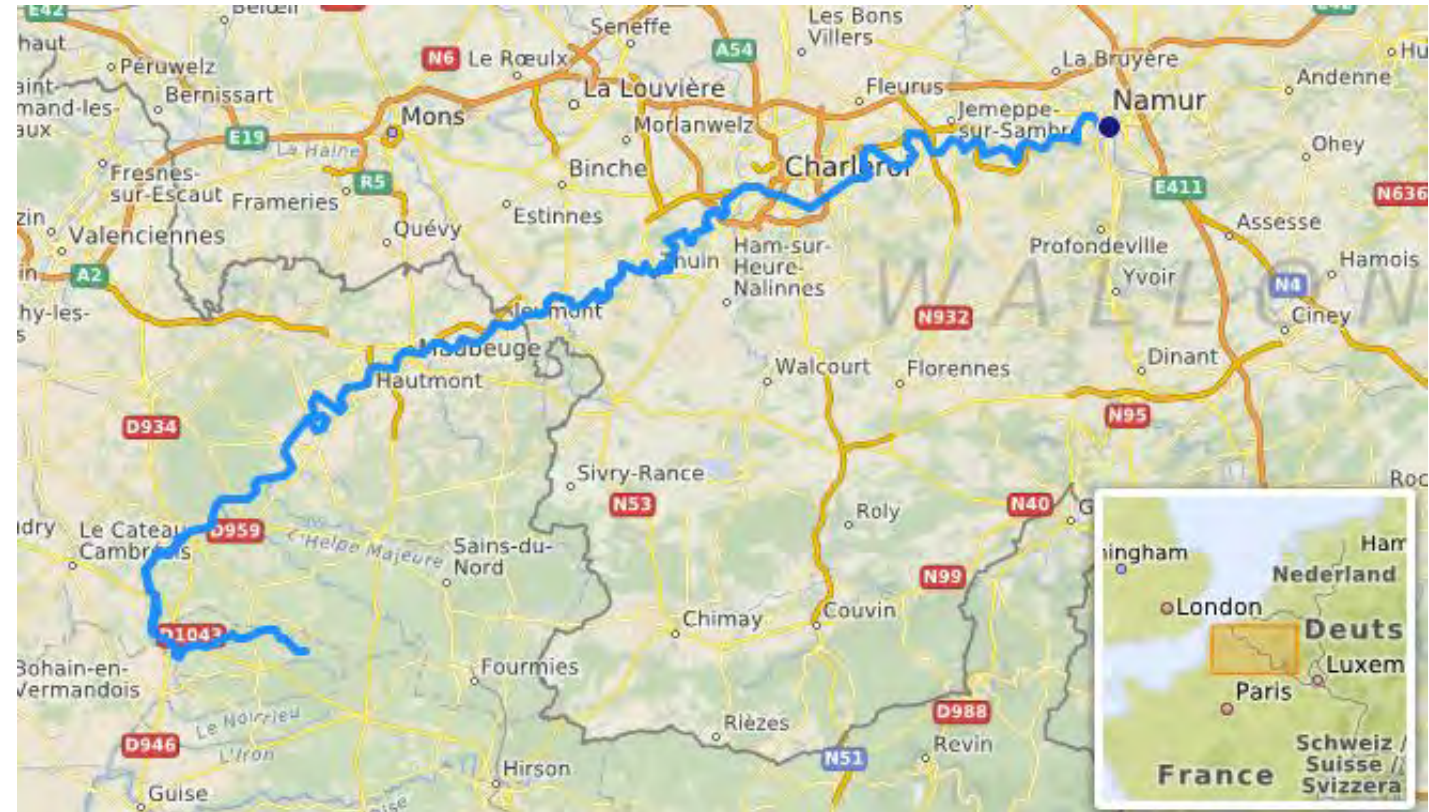


Major telegraph lines in 1891



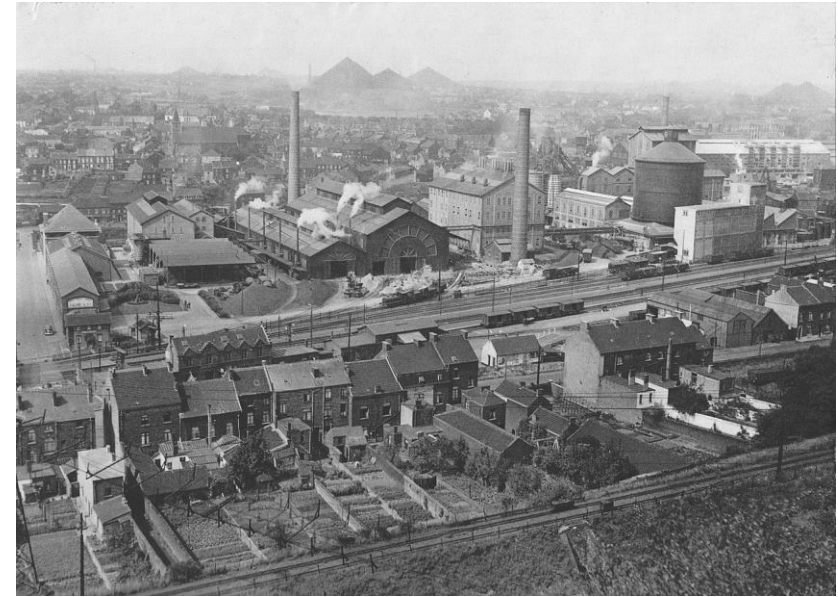
Industrialization in Belgium

- Already a large steel producer by the 1840s
- A global center for metalworking

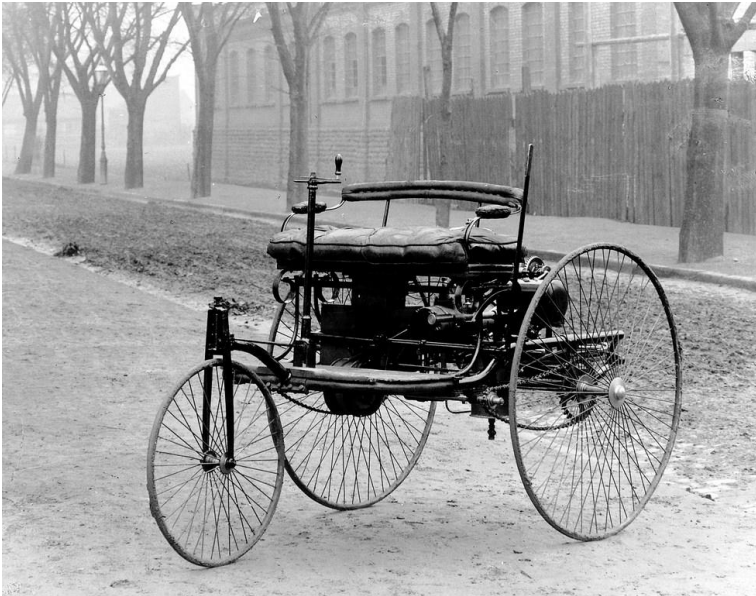


The evolution of Solvay

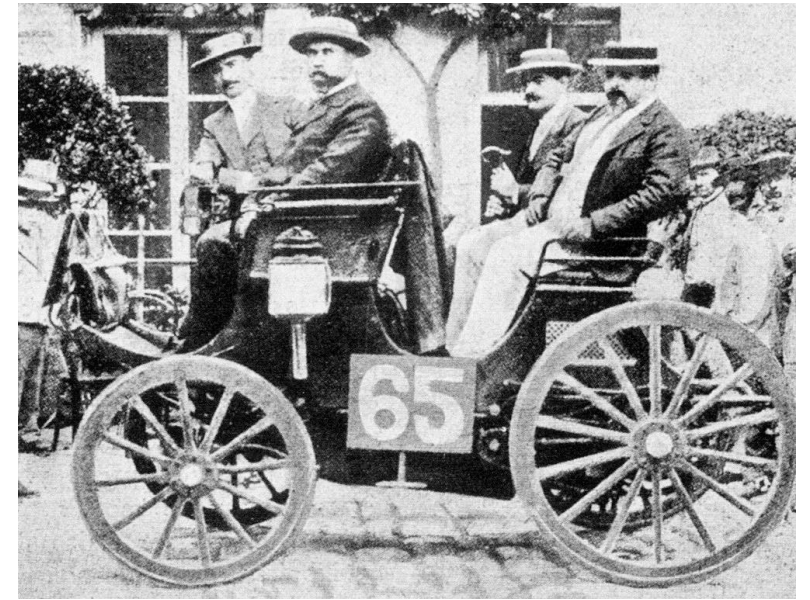
- Founded in 1863, by Ernest Solvay and his brother Alfred
- Solvay or licensees produced 95% of worldwide soda ash by 1900
- Essential for manufacturing
 - Glass
 - Soap & Detergents
 - Textiles and paper industry
- Before World War I, Solvay was the largest multinational company in the world
- Original Belgian plant top right; US plant north of Syracuse NY is below



Benz 1885 - first production automobile



Paris-Rouen 1894



- Peugeot manufacturing business began in 1810 with a steel foundry, manufacturing hand tools and circa 1840 to 1842, coffee grinders
- The company also used stiff steel rods for petticoats or crinoline dresses
- This led to umbrella frames, chisels, wire wheels, and then circa 1880 bicycles
- Initial powered vehicle experiments resulted in an early gas-powered car; 300 a year produced by 1900

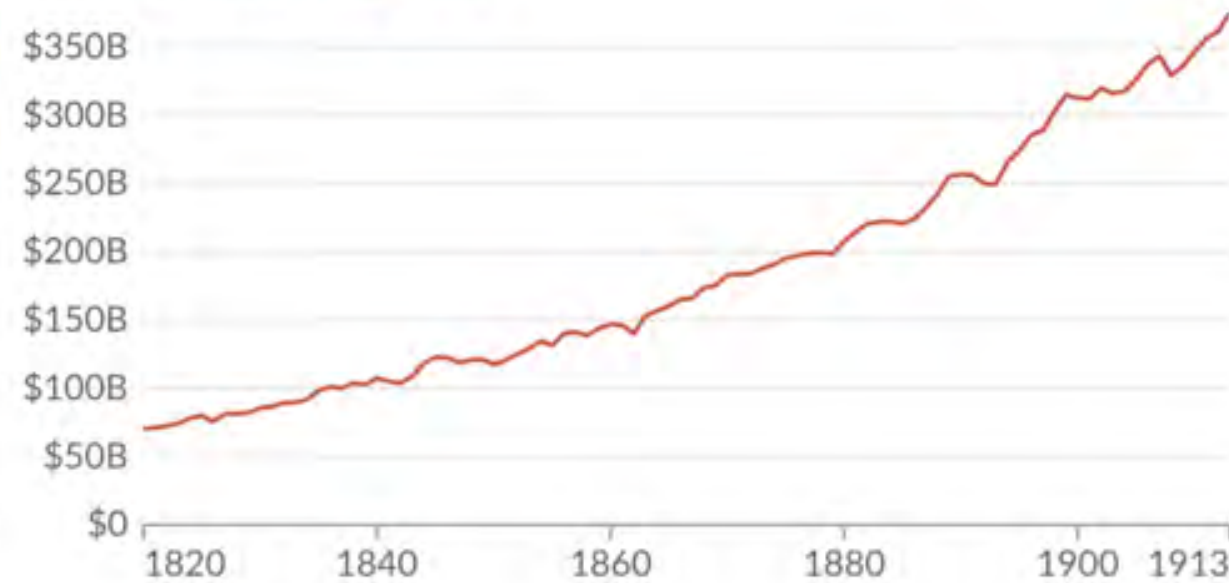
Gross domestic product (GDP), 1820 to 1913

This data is adjusted for inflation and differences in the cost of living between countries.

Germany



United Kingdom



France

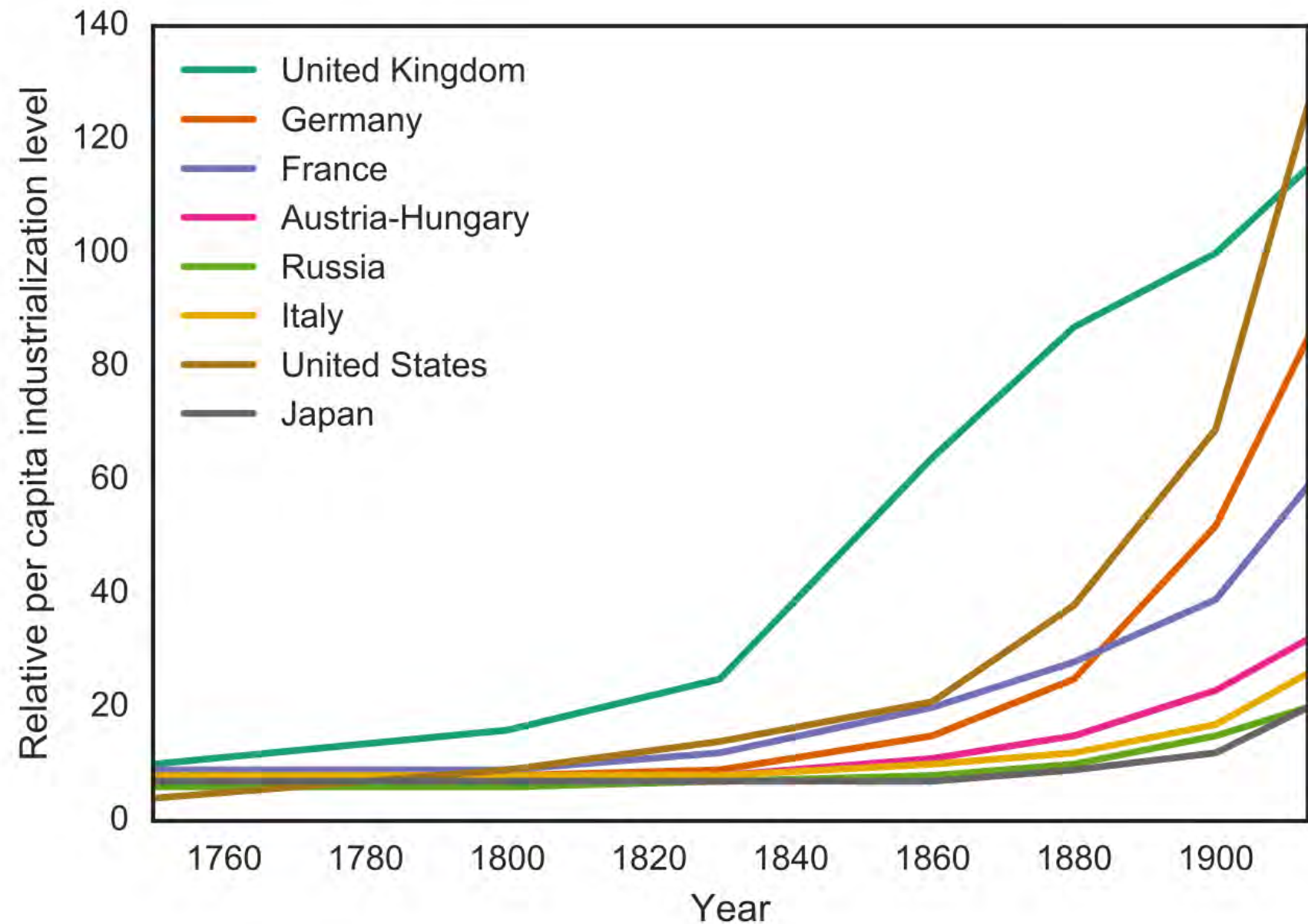


Austria

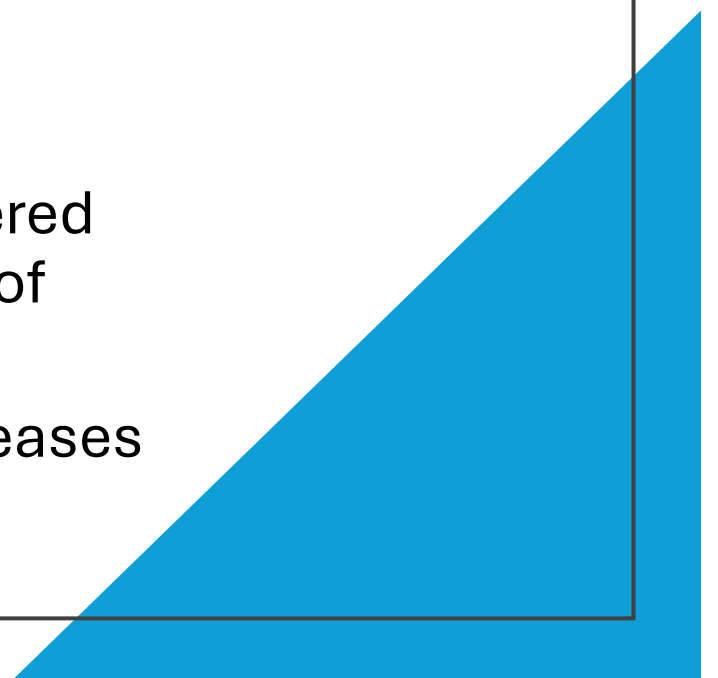


Capita levels of industrialization - between 1750 and 1910

Relative to Great Britain
Year 1900 = 100



Societies' Progress

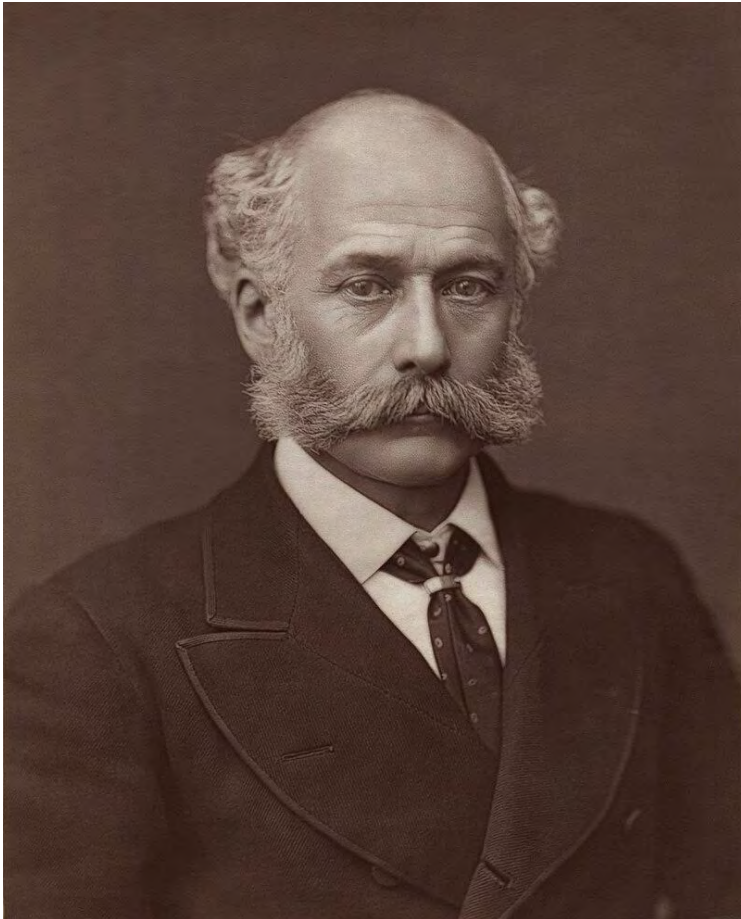
- Advancements in manufacturing and production technology enabled the widespread adoption of technological systems such as telegraph and railroad networks, gas and water supply, and sewage systems
 - Expansion of rail and telegraph lines after 1870 allowed unprecedented movement of people and ideas, which culminated in a new wave of colonialism and globalization
 - New technological systems were introduced, most significantly electrical power and telephones
 - These innovations broke down regional isolation, fostered economic integration and supported the rapid growth of new ideas and cultural trends
 - Construction of modern sewage systems reduced diseases like cholera
- 



The “Great Stink” in London



Sir Joseph Bazalgette - about 1870



- Revolutionized London's sanitation by designing and building a modern, large-scale sewer system in response to the city's dire health crises and the infamous "Great Stink" of 1858
- As Chief Engineer of the Metropolitan Board of Works, Bazalgette created an extensive network that radically transformed the management of human waste and drastically improved public health
- Construction involved 1,100 miles of street sewers, which fed into 82 miles of major "intercepting sewers" running parallel to the Thames
- - These directed it eastwards, downstream of London, where it was released during high tide to minimize contamination

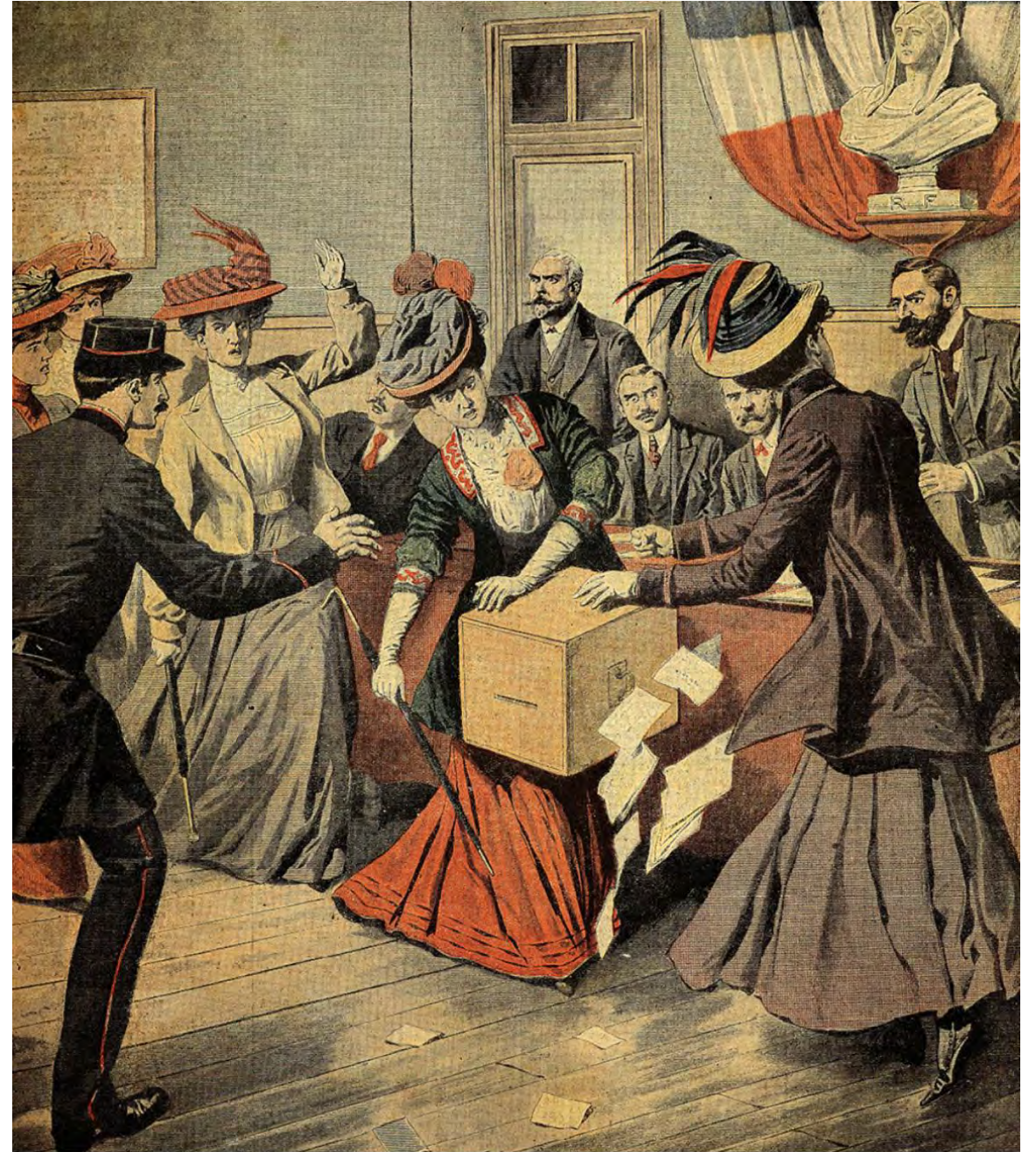
The Zielony Balonik ('The Green Balloon')

- A popular Cracow literary cabaret
- Opened in 1905, it was forced to close six years later by the Russian police
- Like other, similar institutions in Paris, Barcelona and Berlin, it was closely associated with the modernist movement in the arts



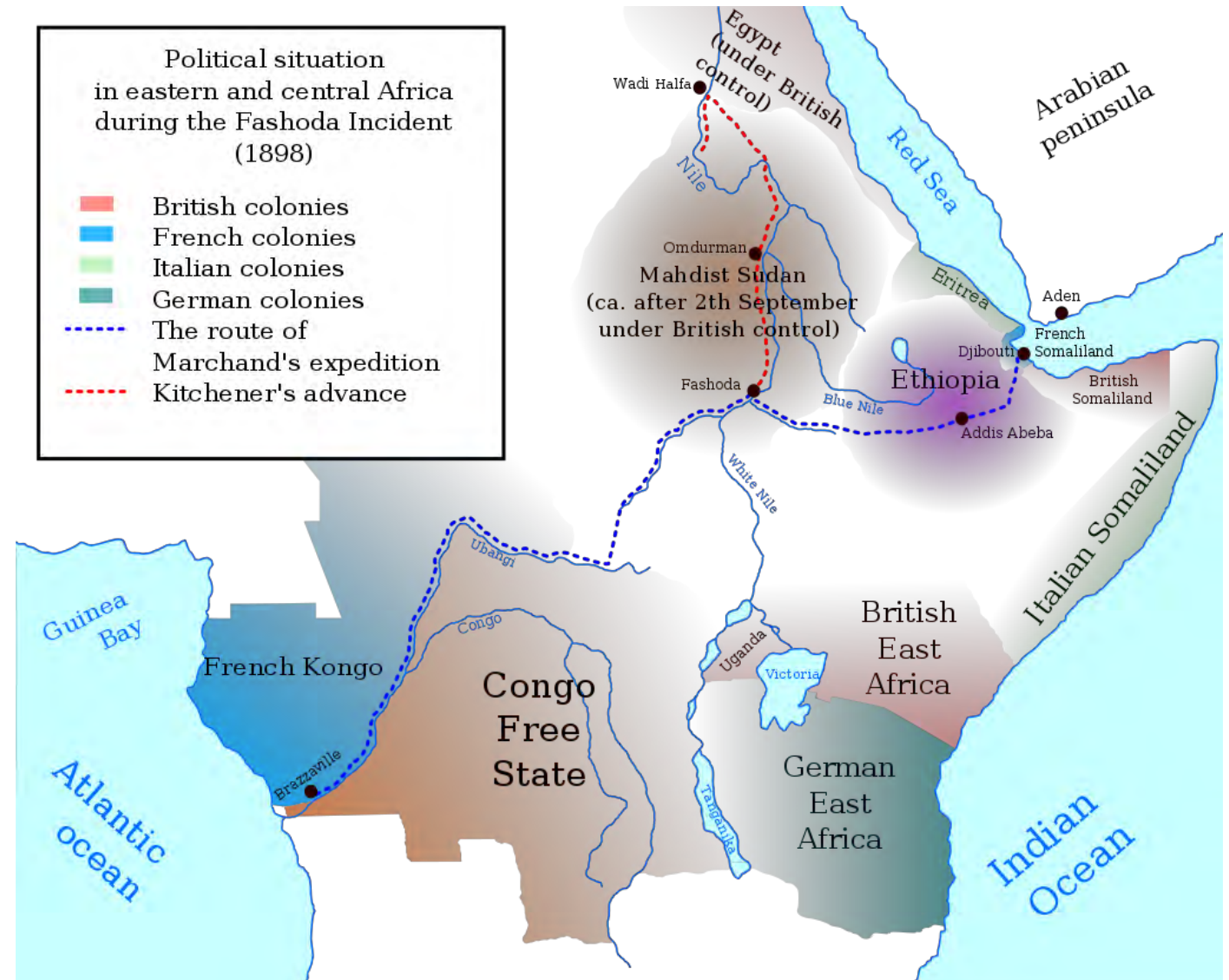
The Right of Women to Vote

- Hubertine Auclert and other French women's suffrage activists invade a polling station in May 1908
- Norway and Finland both introduced voting rights for women before 1914
- Frenchwomen had to wait until 1944 until they were granted the vote.



Fashoda Crisis

- France and Britain confronted each other at Fashoda, Sudan, each staking claims for an African empire
- Both countries mobilized, but commanders Marchand and Kitchener kept the peace
- France eventually withdrew, acknowledging British control and easing imperial tensions
- The incident symbolized colonial rivalry, but its peaceful resolution helped pave the way for the later Anglo-French Entente.”



Emigrants (1894) by Raffaello Gambogi

- Italians embarking at the port of Livorno for New Zealand, in response to advertisements from an emigration agent
- The mass emigration of Italians did not begin until the turn of the century, after which over 150,000 left every year, mostly for Argentina or the USA



Disinfection of Travelers on the Danube Entering Serbia in 1911

Cholera epidemic was moving from the East
into Europe



Memorial: Liberation of the Bulgarian Church from the Greek Patriarchate

- Fifteen years of struggle
- The creation of an independent Bulgarian Exarchate reflected a much wider European clash between:
- Nationalism and universal Christianity



Advertisement for an 1886 edition of Victor Hugo's Popular Novel

- First published in 1862
- Les Misérables was one of many works of fiction that explored the underworld of the poor and dispossessed in:
- New urban-industrial society of the nineteenth century.



Assassination of the Spanish Prime Minister Antonio Cánovas del Castillo

- 8 August 1897, while the politician was relaxing at a thermal spa
- The murder, carried out in revenge for the execution of five Spanish anarchists ordered by Cánovas shortly before
- One of many such outrages carried out in Europe in these years.



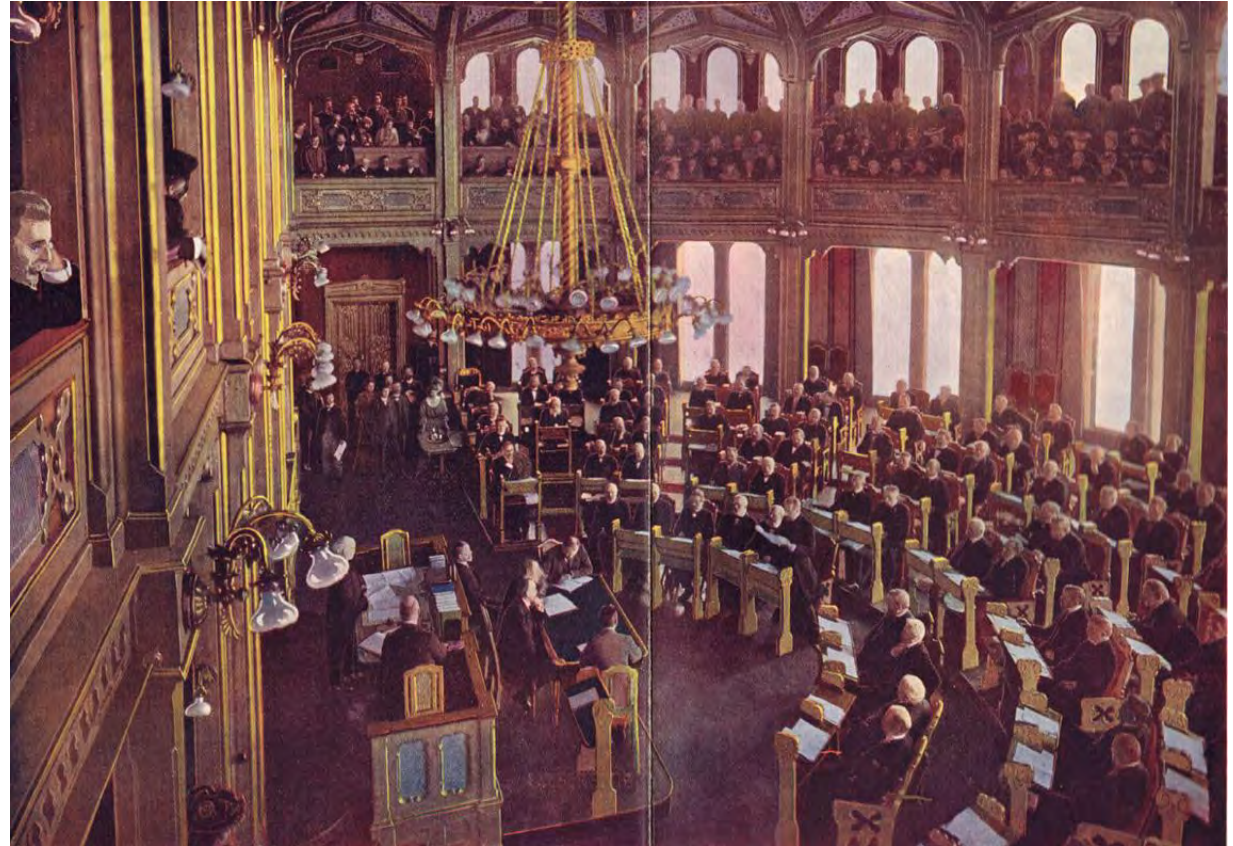
Russia Attempting to Russify Finland

- Sibelius Compositions:
- Finlandia
- Lemminkäinen's Return; inspired by the *Kalevala*, folklore origins of the Finns
- The first written version of the *Kalevala* was published in 1835



Norway Declares Independence from Sweden

- 7 June 1905
- The separation of Norway from the Swedish crown was achieved without bloodshed
- Largely to the threat of a general strike against military intervention by the Swedish labor movement



End of Formal Presentation