Beginning of transatlantic friendship

Glory to God in the Highest, peace on earth, good will to men. So telegraphed Queen Victoria to President Buchanan of the US via the first transatlantic cable nearly 150 years ago, on 16 August 1858.

The New York financier Cyrus West Field was the major force behind early efforts to span the Atlantic. The first attempt, in 1857, was abandoned following two breakages. The project was revived in 1858 with two cable-laying vessels meeting in mid-Atlantic, where the halves of the cable were spliced together then paid out eastwards and westwards. Again the cable broke, three times. The expedition returned to base and set out again. The ends were spliced; this time the cable ran out easily and was landed in Newfoundland and western Ireland.

Following the exchange of telegrams there was great rejoicing in New York City, but the jubilation was short-lived. The insulation broke down and by October the cable was useless. Field was undaunted by the failure, but the public had lost confidence in the scheme and it was not until 1864 that Field succeeded in raising the capital to try again. Much experience had been gained in the meantime, with long cables being submerged in other seas.

In 1865 the mighty *SS Great Eastern* was called into cable-laying service. The attempt failed when the cable snapped near the stern of the ship and the end was lost. The next year the ship started paying out once more from Ireland, and this time the venture was successful. Congratulations poured in and friendly telegrams were again exchanged between Queen Victoria and the US. The Great Eastern put to sea once more in order to grapple the lost cable of 1865. The finest Victorian can-do attitude shone through; for days the ship plied here and there with a grapnel at the end of a stout rope. Hopes were raised then dashed but eventually the cable was fished up from a depth of two and a half miles, spliced to a fresh cable and paid out to Newfoundland.

There were now two working cables and public confidence in transatlantic telegraphy was restored. Delivering a message by ship took at least 10 days, but now communication could be achieved in a matter of minutes. And by the end of the 19th century Europe and North America were linked in a sophisticated web of telegraphic cables.

How the potato shaped history

The humble potato, a native of the Peruvian-Bolivian Andes, has played a large part in directing historical events. Without abundant food, provided mainly by potatoes, the Inca civilisation could not have flourished as it did in the severe climate of the Peruvian altiplano. The vegetable was encountered by the invading Spaniards, who introduced it to Europe in the second half of the 16th century. The Spanish hegemony in Europe (1559–1640) relied on the efforts of the conscript potato-fed miners of Potosí, in Bolivia, who produced unparalleled quantities of silver that allowed the Spanish government to sustain imperial expenses.

Nearer to home, one acre of potatoes and enough grass for a cow provided a balanced, healthy diet for an entire Irish peasant family. This way of life was, however, dangerously dependent on a single crop. The disastrous Irish potato famine of 1845–47, due to the fungal disease late blight, and its effect on the social landscapes of the US and elsewhere, is common knowledge. Less well known is the shameful record of some British aristocratic landowners, who continued to export grain from Ireland even as thousands of Irish people were starving to death.

The calorie yield per acre from potatoes is usually two to four times that from grain, but potatoes do not store as well as grain. Potatoes can be left in the ground, however, until it is time to eat them. Military foraging parties in fought-over areas were able to find grain stores without difficulty. Potatoes, being less accessible, were a lifesaver for the peasants of northern Europe, who were regularly exposed to the depredations of soldiers. The history of Germany would have been very different without the presence of potatoes in Prussian fields.

The discovery that potatoes could be grown in fallow grain fields without any reduction in the grain harvest led to a new and enormous supply of food, which in the 19th century was used to sustain a rapidly growing northern and eastern European population and allow expansion, both industrial and imperial, and massive emigration overseas. Leftover potatoes were used for animal fodder and for conversion into vodka, which became an important source of revenue for the Russian government.

Sweating sickness mystery

As the world awaits an expected outbreak of pandemic influenza, it is of interest to consider the appearance of the previously unknown sweating sickness, or English sweat, some 500 years ago.

The illness began very suddenly with a sense of apprehension, cold shivers, giddiness, headache, a rapid pulse, prostration and pains in the neck, shoulders and limbs. Within a few hours a drenching sweat came on, accompanied by severe headache, delirium and intense thirst. Death might occur from three to 18 hours after the first onset of symptoms. If the patient survived for 24 hours recovery was usually complete. An episode did not confer immunity and it was not unusual for people to have several attacks. The disease was said to be the easiest in the world from which to die.

The first outbreak was in 1485 and a second less severe one occurred in 1506. In the 1517 epidemic half the population of some towns were said to have perished. The 1528 outbreak spread from England over the Continent, to eastern Europe, southwards to Switzerland and north to Scandinavia. France and Italy were spared however. Many people in Henry VIII's court succumbed to the sweating sickness and Henry changed residences every few days in order to avoid coming into contact with affected persons. He busied himself with a study of the disease and its purported cures such as herbs and blood-letting. There were further outbreaks in England in 1551 and 1578. Each epidemic lasted only a few weeks in any particular locality. The preponderance of wealthy male victims in narrative accounts probably reflects the high profile of such people in society rather than any special susceptibility to the disease.

Sweating sickness was quite distinct from any other malady, but relapsing fever has characteristics in common with it. John Caius, a distinguished physician at the time, attributed sweating sickness to dirt and general filth, which may have been sources of infection. The true cause of the disease is unknown. All the epidemics occurred in late spring or summer so it may have been carried by insects. Nevertheless, it is unusual for a well defined disease to appear then vanish.