Both were in their thirties and fell ill in 2008. The first had been working 7 days weekly in a workshop, renovating windows from Georgian houses. His complaint was of stomach cramps and constipation, then weakness and pains in his muscles; his wife complained he was irritable and restless. The weakness was interfering with his work and he mentioned this to a workmate who suggested the diagnosis. He recovered completely after changing jobs. The second man was housed in appalling conditions with other migrant workers from Poland and Romania, working long hours restoring a 17th century mansion. He and several others developed stomach pains and muscle weakness and unsteadiness. Two Romanians had been admitted acutely with abdominal pain before he went to hospital and lead poisoning was diagnosed. The employer was successfully prosecuted.

The classic work on lead poisoning, *Traité de Maladies de Plomb ou Saturnine* was written in 1839 by Louis Tanquerel des Planches (1810–62), a physician in Paris. He recorded his researches on some 1500 patients at l’hopital de la Charité over 8 years, recording that the majority has abdominal colic but up to 20% had other symptoms without colic. He not only categorized the symptoms as colique, arthralgie (muscle pain and cramps), paralysie and encéphalopathie (a word he coined) but also described earlier manifestations: a blue-grey line on the gums, which he showed was due to lead sulphate; loss of weight; distinctive odour of the breath; and pallor of the skin. He traced the history of lead poisoning back to the time of Hippocrates and suggested that epidemic colic in Poitou described by Citois in 1616 was from adulteration of wine by lead salts intended to improve its taste. A similar episode in Devon, reported by Huxham in 1745, was attributed to the leaching of lead from vessels in which cider was made and stored. Des Planches described the causes of lead poisoning, and the importance of solubility, which differs among metallic lead and its various oxides and salts. He wrote of the ways lead could be absorbed—a noblewoman using white lead on her face, quack doctors poisoning their patients with lead draughts, children eating sweets coloured with lead chromate, naval officers from breathing vapour in their newly painted cabins (the sailors were spared as their accommodation was left unpainted), and so on. The majority of his patients was making lead products or painters, but he described many other occupations that had led to poisoning.

Des Planches’ discussion of therapy acknowledged that spontaneous remission occurred commonly on removal from exposure, but it is easy to understand why there were ‘few diseases against which so many and varied remedies have been used’, as the colic and constipation were often severe and purging was a popular treatment for most illness. As lead poisoning often remitted spontaneously, credit would be given to the doctor whatever he did if the patient survived. He studied the effects of many remedies, including opiates, acid draughts, purgatives and emetics, before deciding that oil of croton produced the best results in colic, sulphur baths in muscle pain and electric stimulation in paralysis (perhaps because they did least harm). It is interesting to note that Auguste Chomel, who is credited with introducing the ancient principle of *primum non nocere*, first do no harm, to French medicine, was professor of medicine at la Charité at the time. Perhaps des Planches was influenced by him; certainly his introduction to the sections on treatment makes clear the various biases that had influenced results published up to his time and the difficulty of differentiating spontaneous from therapeutic responses. He stressed the importance of exclusion of the victim from the workplace until he had fully recovered. In his final chapter he described methods of prevention in different workplaces, stressing the importance of good ventilation, personal protection and personal hygiene, and is credited with being the first to call for medical inspectors in lead works. Late in life, he moved to Mayenne in the Loire region where he made noted contributions to agriculture.
Although lead poisoning was known in Britain (Ramazzini’s 1714 description of it was quoted by Pott in his paper on occupational scrotal cancer in 1775), probably the first account of it as an occupational disease in Britain was by Wilson among the lead refiners in Ayrshire in 1754.\textsuperscript{1} The first detailed description in English was by Sir Thomas Oliver from Newcastle in his Goulstonian lectures of 1891.\textsuperscript{2} He went further than des Planches in emphasizing the risks from drinking water containing lead dissolved from pipes and vessels, a problem that was then occurring in epidemics. Like des Planches, he described the manifestations of poisoning, explored the pathology and emphasized the importance of preventive management. In particular, he noted the dangers of acidic water and the benefits of adding calcium carbonate.

Lead is a metal that is purely toxic and plays no role in human metabolism. Acute poisoning is now rare in developed countries but I have seen it in India where simple preventive measures in a refinery were being ignored. In such countries anaemia and stomach pains are commonplace and workers may not have access to doctors, so the diagnosis is likely to be missed, with serious consequences. More concerning has been the insidious poisoning of young people, with subtle effects on brain development, from ingested lead and inhaled traffic fumes. An estimate from epidemiological studies suggests that a rise in population blood lead from 10 to 20\(\mu\)g/dl in under 5-year-olds is associated with an average fall of 2 IQ points.\textsuperscript{3} Where addition of lead to petrol has been banned and efforts have been made to reduce release into domestic water there have been substantial reductions in blood levels in children.\textsuperscript{4}

The ancient name for lead poisoning, saturnism, derives from the alchemic name for lead. Although now much less relevant, this malign influence of Saturn is still here and can only be kept at bay by continued vigilance. This is especially true in times of potential exploitation of lowly paid workers.

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References