protection given by vaccination and systematic re-vaccination is demonstrated by the almost entire suppression of the disease in Germany (see Dr Bruce Low’s *Report to the Local Government Board,* 1903-1904). Mrs Garrett Anderson, writing to *The Times* in September 1903, showed the enormous expense laid on the rates in England for the main­tenance of smallpox hospitals in order to counteract inefficient vaccination. London with a population of 6½ millions reserves 2500 beds in a hospital removed from the city; Berlin with a population of 2 millions reserves 12 beds in the pavilion of a general hospital; Dresden with a population of 500,000 reserves 20 beds in the Friedrichstadt Hospital, but no case was admitted for 10 years previous to the Report. In Stuttgart (population 200,000) a hut of six beds is set aside for smallpox, but it has fallen into bad repair from disuse. Smallpox cases in Germany are usually sporadic cases introduced by foreigners. Where persons have been exposed to the infection of smallpox, if immediate vaccination fails to protect them from the disease, it has been shown to considerably modify the type. The plan of identification and surveillance of all contact cases has given good results. In the Bristol epidemic of 1908 there were 35 cases and 9 deaths. The contacts numbered 1354, and 16,398 visits of inspection were paid.

The patient should lie on a soft bed in a well-ventilated but somewhat darkened room and be fed with the lighter forms of nutriment, such as milk, soups, &c. The skin should be sponged occasionally with tepid water, and the mouth and throat washed with an antiseptic solution. In a severe case, with evidence of much prostration, stimulants may be advantageously employed. The patient should be always carefully watched, and special vigilance is called for where delirium exists. This symptom may sometimes be lessened by sedatives, such as opium, bromides or chloral. With the view of preventing pitting many applica­tions have been proposed, but probably the best are cold or tepid compresses of light weight kept constantly applied over the face and eyes. The water out of which these are wrung may be a weak solution of carbolic or boracic acid. When the pustules have dried up the itching this produces may be much relieved by the application of oil or vaseline.

What is known as the *red light treatment,* in which the actinic or chemical rays are excluded, has been advocated by Prof. Niels Finsen of Copenhagen and others. He considers it valuable only in that it protects the pustule from the deleterious effects of light, and he and other observers claim that if resorted to early it abolishes suppuration in the pustules, lessens scarring and shortens the course of the disease. Medical opinion in England is divided as to its merit. Herbert Peck of Chesterfield, in 244 cases so treated in 1902-1905, had only 6 deaths, a mortality of 2∙4%, while the case mortality during the same period was, Lancashire 5∙8%, Derbyshire 6%, Cheshire 6∙4%, Liverpool 2∙7% and Manchester 5∙6% in cases treated without red light. An interesting fact in connection with the treatment is its great antiquity in China and Japan, while in England in the middle ages smallpox patients wore red garments and lay in beds where the light filtered through red curtains.

Complications are to be dealt with as they arise, and the severer forms of the disease treated in reference to the special symptoms presented. In cases where the eruption is tardy of appearing and the attack threatens to assume the toxic form, marked benefit attends the use of the wet pack. Disinfectants should be abundantly employed in the room and its vicinity, and all clothing, &c., in contact with the patient should be exposed to the vapour of formalin. Béclère, Thomson and Brownlee have advocated the use of the serum of immunized heifers. The dose, however, requires to be very large, being equivalent to one-fiftieth part of the body weight in adults and one-twentieth part in children.

*Inoculation.—*Previously to the introduction of vaccination (*q.v.*) the method of preventive treatment by what was known as inoculation had been employed. This consisted in introducing into the system— in a similar way to the method now commonly employed in vaccination—the smallpox virus from a mild case with the view of repro­ducing the disease also in a mild form in the person inoculated, and thus affording him protection from further attack. This plan had apparently been resorted to by Eastern nations from an early period in the history of the disease. During the latter part of the Ming dynasty there was introduced into China a system of inoculation in which the method was to blow the pulverized germ-laden crusts from a small-pox pustule through a silver tube into the nostril, the left being chosen in a male, the right in a female. Inoculation was known to be extensively practised in Turkey in the beginning of the 18th century, when, chiefly through the letters of Lady Mary Wortley Montagu, it became known and was speedily adopted in England. There is no doubt, both from the statistics of the Smallpox and Inoculation Hospital, London, and from the testimony of physicians throughout the country, that this practice made a marked impression upon the fatality of the disease, and was itself attended with ex­tremely little risk to life. The objections to it, however, were great, for, although usually conveying the smallpox in a mild form, it not infrequently took effect severely, and, while death might be averted, the disfiguring results of the disease remained. Further, each inocu­lated person upon whom the operation took effect became for the time being a possible source of infection to others, and in point of fact the practice tended to spread the disease and so to increase the general mortality. Although inoculation continued to be practised for a number of years subsequently to Jenner’s great discovery, it gradually became displaced by vaccination, and in 1840 an Act of Parliament was passed rendering smallpox inoculation unlawful in England.

**SMALRIDGE, GEORGE** (1663-1719), English bishop, was born at Lichfield, where he received his early education, this being completed at Westminster school and at Christ Church, Oxford. His political opinions were largely modelled on those of his friend Francis Atterbury, with whom he was associated at Oxford and elsewhere. After being a tutor at Christ Church, he was minister of two chapels in London, and for six or seven years he acted as deputy for the regius professor of divinity at Oxford; his Jacobite opinions, however, prevented him from securing this position when it fell vacant in 1707. In 1711 he was made dean of Carlisle and canon of Christ Church, and in 1713 he succeeded Atterbury as dean of Christ Church. In the following year he was appointed bishop of Bristol, but retained his deanery. In 1715 Smalridge refused to sign the declaration against the pre­tender, James Edward, defending his action in his *Reasons for not signing the Declaration.* In other ways also he showed animus against the house of Hanover, but his only punishment was his removal from the post of lord almoner to the king. He died on the 27th of September 1719. The bishop was esteemed by Swift, Steele, Whiston and other famous men of his day, while Dr Johnson declared his sermons to be of the highest class. His *Sixty Sermons, preached on Several Occasions,* was published in 1726; other editions 1827, 1832, 1853 and 1862.

**SMALTITE, a** mineral consisting of cobalt diarsenide (CoAs2). It crystallizes in the cubic system with the same hemihedral symmetry as pyrites; crystals have usually the form of cubes or cubo-octahedra, but are imperfectly developed and of some­what rare occurrence. More often the mineral is found as compact or granular masses. The colour is tin-white to steel­grey, with a metallic lustre; the streak is greyish black. Hard­ness 5½; specific gravity 6∙5. The cobalt is partly replaced by iron and nickel, and as the latter increases in amount there is a passage to the isomorphous species chloanthite (NiAs2). It occurs in veins with ores of cobalt, nickel, copper and silver: the best known locality is Schneeberg in Saxony. The name smaltite was given by F. S. Beudant, in 1832, because the mineral was used in the preparation of smalt for producing a blue colour in porcelain and glass. (L. J. S.)

**SMART, CHRISTOPHER** (1722-1771), English poet, son of Peter Smart, of an old north country family, was born at Ship­bourne, Kent, on the 11th of April 1722. His father was steward for the Kentish estates of William, Viscount Vane, younger son of Lord Barnard of Raby Castle, Durham. Christopher Smart received his first schooling at Maidstone, and then at the grammar school of Durham. He spent part of his vacations at Raby Castle, and his gifts as a poet gained him the patronage of the Vane family. Henrietta, duchess of Cleveland, allowed him a pension of £40 which was paid until her death in 1742. Thomas Gray, writing to his friend Thomas Wharton in 1747, warned him to keep silence about Smart’s delinquencies lest they should