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NEUROLOGICAL STAMP

Coca shrub (*Erythroxylum coca*)

The main alkaloid found in the coca leaves is cocaine. For centuries the Indians of Peru and Bolivia chewed the leaves for their stimulating effects. In the middle of the 19th century the linguist J J Von Tschudi became interested in the leaves for increasing physical performance. In Paris a manufacturer named Mariani made wine from coca leaves and marketed it as a tonic. This became very popular in Europe and the United States. Enthusiasts included President William McKinley, Thomas Edison, and the Tsar of Russia and Mariani received a medal of appreciation from the Pope. At various times attempts were made to use coca as a treatment for syphilis and whooping cough but without obvious success. In 1859 the Austrian explorer and ship's doctor Karl Von Scherzer brought dried coca leaves to Europe and gave them to the German chemist Wöhler of Göttingen for analysis. In 1859 Wöhler's pupil Niemann succeeded in extracting the effective component of the leaves, which he called cocaine. Moreno Y Maiz, a Peruvian doctor, wrote, in 1868, of cocaine's ability to abolish sensation. He posed the question as to whether cocaine could be used as a local anaesthetic.

In 1884, after using it to treat his own depression, Sigmund Freud introduced cocaine to the physicians of Vienna. He maintained that it was valuable for that disorder, for eliminating nervous stomach complaints, and for augmenting mental and physical efficiency. He also commented on its ability to render mucous membranes insensitive. Freud attempted to cure a variety of nervous diseases with cocaine, even hydrophobia, but failed. In 1885 his treatment of a patient with trigeminal neuralgia by injection of cocaine was unsuccessful. In all probability he missed the nerve.

In 1884, Dr Carl Koller, a colleague of Freud, discovered that the human eye could be rendered insensitive to pain with cocaine, so heralding the start of local anaesthesia. Other men took up and advanced the idea of local anaesthesia, bringing cocaine out of the restricted field of ophthalmology. Halstead injected cocaine into the inferior alveolar nerve; a discovery that revolutionised dentistry. Halstead later became addicted to the drug; he treated his addiction with morphine and became a mor-

phine addict. Earlier, in a reverse approach, Freud had treated his friend Ernst Fleishl's morphine addiction with cocaine and converted him into a cocaine addict. Sir Arthur Conan Doyle had his fictional detective, Sherlock Holmes, take cocaine to keep his wits occupied when not working on a case.

In 1886 John Pemberton of Atlanta, Georgia, introduced Coca Cola, originally an elixir from the cola leaves and caffeine rich extracts from the cola nut. He promoted it as a headache remedy and stimulant. Cocaine was removed from the formula in 1906.

Local anaesthetics such as lignocaine, benzocaine, and procaine have cocaine's anaesthetic properties without its stimulatory side effects.

The coca shrub was shown on a stamp issued by Rwanda in 1969 (Stanley Gibbons 311, Scott 301).

L F HAAS