

News, Notes and Queries

LEPROSY RESEARCH IN NORWAY, 1850-1900

FROM the Ebers Papyrus, which was translated into German by the Norwegian physician Bendix Ebbell (1865-1941), it is seen that leprosy was well known to the Egyptians of 5,000 years ago. The most ancient records of India and China also refer to the disease, and the Bible tells us that Moses ordered strict regulations for the daily life of the leprous. Leprosy began to appear in Europe in the early Middle Ages (sixth-seventh centuries), but did not become pandemic until the time of the Crusades. It reached its height in the thirteenth century, and although it declined rapidly in the fourteenth, it persisted in endemic form. It may be mentioned that in 1880, 1,600 lepers lived in Norway, i.e. very nearly 1 per cent of the population. Today the incidence is about 0.003 per cent.

As in other countries, leprosy in Norway caused several medical, social and legal problems. These problems attracted the attention of outstanding physicians who dedicated their lives to the benefit of the leprous and to the solution of the questions attached to the disease.

Three names are especially connected with leprosy research in Norway, and of these it is natural first to mention Daniel Cornelius Danielssen (1815-1894). Danielssen, who was born in Bergen on the west coast of Norway, was only thirteen when he became a pharmacist's apprentice. A few years later he had to abandon this career because of a tuberculous infection. He soon recovered, but the disease periodically affected his ability to work during the rest of his life.

After his recovery Danielssen returned to school and continued his general education until 1835. He then went to Christiania (Oslo) and qualified as a doctor in 1838. The remainder of his life was spent in Bergen. At that time a new hospital for lepers was planned, and when it was opened in 1849 Danielssen was appointed head of its staff. He had already demonstrated his great interest in leprosy through the famous book which he published in 1847 with Carl Wilhelm Boeck. This book, which bore the simple title *On Leprosy*, was translated into French in the following year.

Danielssen was convinced that leprosy was a congenital dyscrasia and not an infectious disease. During his lifetime he performed several inoculations on himself with leprous material, and the fact that he did not develop the disease confirmed his conviction that leprosy was congenital. When his son-in-law Armauer Hansen discovered the leprosy bacillus in 1873 Danielssen refused to accept this fact. This, of course, does not detract from his noteworthy and beneficent work.

Danielssen also played an important role as a zoologist and made valuable contributions in this field. These were of special importance for the fisheries on the west coast of Norway. From 1864 to his death he was chairman of the Bergen Museum, now the University of Bergen. His interest in zoology made him join several expeditions to the Arctic Ocean, and he also contributed to Michael Sars's famous work, *Fauna Littoralis Norvegiae*. Danielssen also took an active part in politics, and he represented his native town in the Norwegian parliament for some years as a member of the liberal party.

For several years Danielssen co-operated with the dermatologist Carl Wilhelm Boeck (1808-75). Boeck was born in the small town of Kongsberg and qualified as

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a doctor in 1831. In 1846 he was called to the University in Christiania and in 1851 he became professor of dermatology there. He spent some years in England, Italy and Greece, studying the occurrence and manifestations of leprosy. After his return to Norway he joined Danielssen and wrote the general part of their joint work on leprosy.

Boeck also took great interest in the study of syphilis. There is no doubt that his original ideas were of importance for the development of research in this field, but his special kind of therapy, the so-called syphilization, caused much opposition. However, his book *Recherches sur la Syphilis*, which appeared in 1862, is a work of the greatest significance.

The third name to be recalled is that of Gerhard Henrik Armauer Hansen (1841–1912). Like Danielssen, he was born in Bergen and spent most of his life there. He qualified in 1866 and joined the staff of the leprosy hospital in 1868. The following year he received the university award for a study of the normal and pathological anatomy of the lymph glands. After spending two years abroad he went back to his hospital and took part in a study of leprosy affections of the eye, in collaboration with the Bergen ophthalmologist Ole Bull (1842–1916). Their publication, and a study of the same subject carried out by the Trondhjem ophthalmologist Lyder Borthen (1849–1924), are outstanding examples of Norwegian contributions to the solution of problems connected with leprosy.

The final proof that leprosy is caused by a microbe was given in 1873 when Armauer Hansen discovered the leprosy bacillus. For several reasons many years passed before this important discovery was widely known. In the beginning of this century Hansen was proposed as a candidate for the Nobel prize, but after serious consideration the committee stated that his discovery was too old to qualify him for this award.

In 1875 Hansen became head of the Norwegian organization for the care of lepers. After many trials he finally succeeded in staining the leprosy bacillus in 1879, and in 1881 he had the opportunity of demonstrating his method to Pasteur. When in 1885 a new law concerning the care of lepers was introduced, he took great interest in its preparation. Together with his Bergen colleague Carl Looft (1863–1943) he published a well-known work on leprosy in 1897.

When Armauer Hansen succeeded in staining the *Bacillus leprae* he employed one of Koch's staining methods, and it was with the help of Koch that he brought about the first international leprosy congress in Berlin in 1897. In 1909 he acted as president of the second congress which was held in Bergen. Like Danielssen he was an able zoologist, and he also followed his father-in-law as the head of the Bergen Museum in 1894, a chair which he filled until his death in 1912.

BERNHARD GETZ

DIROM GREY CRAWFORD, 1857–1942

COLONEL CRAWFORD, the historian of the Indian Medical Service, was born in India a hundred years ago and died in London during the last war at the age of eighty-five. He recorded his own career in brief in his *Roll of the Indian Medical Service 1615–1930*, varying it not at all from the form of entry used for the thousands of his predecessors and successors. At the centenary of his birth he deserves a less laconic appreciation.

His father was serving in the Bengal Civil Service at Chinsura when Dirom Grey