



in several Departments of Frere Hospital as an Honorary Consultant. One of his particular interests was in hydatid disease, and he published a paper based on his research, which was widely recognised and applauded.

He early on became actively involved with the Border Branch of the South African Medical Association, and from 1962 to 1998 served as a Branch Councillor. He was Branch President in 1978, 1979 and 1994 and served also as Chairman in 1994. From 1978 to 1991 he, in addition, served as Federal Councillor of the Branch. In 1989 he was the national SAMA President. From 1996 to 1998 he was Chairman of the SAMA Provincial Council for the Eastern Cape Province. He was honoured with the SAMA Branch Award in 1975 and the Bronze Medal in 1997. He was the Ciskei Minister of Health from 1990 to 1993.

He joined the Rotary Club of Arcadia in 1984, and apart from an enforced break during his ministerial years, remained a member until his death. His input and energy were beyond compare, and his Rotarian achievements were recognised with the highest awards both locally and internationally. In 1997 he travelled extensively in Europe and North America, establishing personal links with Rotarians in the USA, Canada and Holland. He set up a system whereby redundant, but

still highly useful, medical equipment would be collected, packed in containers and shipped to East London. In May 1998, the Rotary Medical Equipment Exchange, or ROMEX, was founded. To date, some 90 containers have arrived, with equipment valued at an estimated R160 million.

Through 'wish lists' received from hospitals and clinics throughout the Rotary District (and even from Cape Town, Pretoria and Durban), Henk meticulously compiled consignments of equipment for distribution. I spent many a Saturday morning in the warehouse helping with the sorting and packing. It is hard to believe how many boxes, beds and wheelchairs (not to mention the rest) will be disgorged by a single 40-foot container!

Throughout the years I knew Henk via Branch Council, Rotary and as a friend, I never heard him utter a boastful remark: he did indeed hide his lamp beneath a bushel. Long may his inspiration survive among those whose lives he touched.

Our sincerest condolences are offered to Sue, Henk's seven children and twelve grandchildren, and all the rest of the family.

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BOOK REVIEWS

Thomas Willis 1621 - 1675: His Life and Work

By JT Hughes. Pp. +143. Illustrated. £20.00. Rimes House. Oxford. 2009. ISBN 978-1-874317-03-6.

This work was first published in 1991 by the Royal Society of Medicine in its series *Eponymists in Medicine* and this new impression appearing 18 years later is a fitting tribute to this outstanding biography of a remarkable, but forgotten, man. Dr Trevor Hughes considers each period of Willis' eventful life to present the reader with a comprehensive picture of an astute clinician who lived in a time of great change and discovery to which he contributed significantly. He also belonged to a circle of very gifted men whose legacy to medicine and science has endured for more than three centuries.

Thomas Willis was born in Oxford in 1621, at the commencement of the struggle between King and Parliament. He experienced the Civil War as it manifested in Oxford, lived through the Commonwealth and Protectorate from 1649 to 1660 and saw the restoration of Charles the Second. The latter event was a turning point in Willis's fortune as a Royalist.

In these troubled times in Oxford, Willis attended medical school but was not a student of Harvey, who in 1628 had

published his work on the movement of the heart and the circulation of the blood, probably the most significant medical publication of all time. Harvey's influence and books were alive in Oxford and Willis must have absorbed some of this in his student days, brief as they were. This is mentioned because Willis has been called 'the Harvey of the nervous system'.

Willis was particularly interested in the anatomy of the nervous system, the field in which he made his most significant contributions, and it would be difficult to overrate his contributions to the understanding of the structure and function of the nervous system. His *Cerebri Anatome* not only demonstrated neuroanatomical structures but also provided a nomenclature which included the concept of neurology.

A fascinating chapter in this biography deals with people with whom Willis had had close contact: friends, teachers, colleagues and pupils. Of the friends Robert Boyle, Richard Lower, John Locke may be singled out but Christopher Wren, who drew some of the pictures for the *Cerebri Anatome*, deserves special mention.

This thoroughly researched and most readable book about a remarkable doctor and scientist who has almost been forgotten, should be read by anyone with an interest in medical history, and the history of science, particularly of 16th century England.

J C de Villiers

Emeritus Professor of Neurosurgery
University of Cape Town



Mosquito Net. A Story of the Pioneers of Tropical Medicine

By Cyril Fox. Pp. 253. £11.95. i2i Publishing, Manchester. 2008.
ISBN 978-0-9560369-0-2.

Cyril Fox has done us a favour by writing this gem of a book. The main actor is the mosquito that is the vector of several diseases of man, the most important of which are malaria and yellow fever. From antiquity these scourges have had major impacts on human lives and economies. Dr Fox introduces the great names in tropical medicine who made major discoveries that would benefit mankind enormously.

He shares their triumphs and the difficult circumstances in which they worked, but does not spare their weaknesses and jealousies.

In 1880 Alphonse Laveran, a French army surgeon, observed the malaria *Plasmodium* in the first stage of sexual reproduction; in 1894 Patrick Manson shared thoughts with Ronald Ross that the mosquito is malaria host and vector; in 1897 Ronald Ross demonstrated the mosquito's role in malaria transmission and the life cycle of *Plasmodium*; and in 1898 Giovanni Grassi discovered that the female *Anopheles* is the carrier of malaria and demonstrated human transmission via mosquito bite. Ross received the Nobel Prize in 1902 but had unseemly conflicts with his earlier mentors, Manson and Grassi.

Heroes in unravelling the mysteries of the cause of yellow fever include Dr Carlos Finlay (1833 - 1915) – a Cuban doctor of French and Scottish descent who was the first, in 1881, to



theorise that a mosquito was a carrier of the organism causing yellow fever. Dr Walter Reed (1851 - 1902) was a US army physician who in 1900 led the team that confirmed the theory that yellow fever is transmitted by mosquitoes. This gave impetus to the new fields of epidemiology and biomedicine and allowed the resumption and completion of work on the Panama Canal (1904 - 1914) by the USA. Three colleagues in Cuba allowed themselves to be bitten by mosquitoes: one died, another survived but remained sickly and died early, and the third survived. Their proof was nevertheless not considered final and experiments continued with volunteers – considered to be the first informed consent studies.

William C Gorgas was a US physician and later surgeon general of the army from 1914 to 1918. In 1898, after the end of the Spanish American War, Gorgas was appointed chief sanitary officer in Havana, working to eradicate yellow fever and malaria. Gorgas capitalised on the momentous work of Major Walter Reed. He implemented far-reaching sanitary programmes including the draining of ponds and swamps, fumigation, mosquito netting, and public water systems that permitted the construction of the Panama Canal. Gorgas received an honorary knighthood from King George V. He died on 3 July 1920 and was given a special funeral in St Paul's Cathedral.

Impressed about what Gorgas had achieved in the Panama Canal he was invited to advise on the high death rates from disease on the South African gold mines. He visited South Africa in 1913 and issued a damning report. The gold mines and South Africa benefited by his suggestion of appointing Dr Alexander Orenstein, who had worked with him in the Suez Canal.

Note: Orenstein subsequently, like Gorgas, achieved high military rank as surgeon general of the South African medical services in World War II and had a major impact on occupational health, nursing education and many other aspects of health services in South Africa.

The book is a good read and a useful reference for the people and events involved in these discoveries.

J P van Niekerk