

He Saved Millions of Lives

The Birth Centenary of Ronald Ross

By

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Author of "Ronald Ross, Discoverer and Creator"

Some of the poems Sir Ronald wrote in India reflected his feeling for the sufferings of the people and the doctor's sense of helplessness. In one, entitled "Indian Fevers", he prayed God to reveal "the unseen, small, but million-murdering cause". For several years he sought all the available information (which was little) about malaria, and finally decided to test thoroughly one of the theories—that it was connected with mosquitoes. At that time nobody knew there were hundreds of species of mosquitoes.

Ross tried to get sent to the most malarious areas, and used his own money, although he was a poor man with a family, to pay for assistance in capturing different kinds of mosquitoes and in bribing malarious patients to allow the insects to "bite" them, that is suck their infected blood. He hoped to find in one of the mosquitoes a trace of the malaria parasite, which had never been seen except in human blood.

After two years of ceaseless effort in addition to his medical duties, he had succeeded only in having several attacks of malaria. He also went down with cholera, after organising measures to end a terrible epidemic. This nearly killed him.

Secret Unveiled.

It was on August 20, 1897, when about to abandon the quest—discouraged and exhausted—that he found what he was looking for in a type of mosquito to which he had recently paid special attention, called "dapple-winged". It was indeed a female *Anopheles*, which we know as the malaria carrier. In the tissues he saw a dark stain, and when he

Born on May 13, 1857, the late Sir Ronald Ross was an obscure doctor in the Indian Medical Service during the 1880s and 1890s, until his epoch-making discovery in 1897 of the tiny parasite of malaria in the stomach tissues of a mosquito he had dissected under the microscope. To achieve this he had almost abandoned a career as a poet and writer of prose romances in which he could have become famous.

But by unveiling the secret of how malaria was carried he enabled us to wage successful warfare against the deadliest disease in human history, so that there is a prospect of finally conquering the scourge in the near future.

altered the focus of the cracked eye-piece of his microscope he realised it was the malaria parasite. The next day he noted it had grown larger.

Besides following up other lines of inquiry and carrying on with his duties, Ross's voluntary quest for the secret of malaria had meant the dissection, micron by micron, of every bit of the tissues of about 1,000 mosquitoes under his microscope, always looking for the malaria cells. Each insect had required two hours of concentrated searching before he made his Columbus-like discovery of a new Continent of knowledge. In the next year he demonstrated the life-cycle of the parasite from carrier to host by a study of malaria in birds at Calcutta. In 1899 he retired from the Indian Medical Service after making full reports.

Ross spent most of the rest of his life making others realise that vast areas of the earth desolated by malaria and famines could be brought back to health by controlling the breeding of mosquitoes. His campaign was helped by the award

of a Nobel Prize in 1902. In some places opposition and scepticism held out for years. Deadly areas in Malaya were transformed under the supervision of his disciple, Sir Malcolm Watson. The Suez Canal directors took his advice on mosquito-control in the Canal Zone, where malaria was increasing.

American doctors followed by tracing yellow fever to another mosquito, and cleared up Havana. After this their army surgeon, W. C. Gorgas, who became General Gorgas, head of the United States Medical Services, was put in charge of hygiene at Panama, making the cutting of the Canal successful. An earlier attempt by the French engineer, de Lesseps, had failed disastrously owing to malaria and yellow fever.

Gorgas wrote to Ross in 1914: "It seems to me not extreme to say that it was your discovery that enabled us to build the Canal..."

The long story of the fight against malaria is approaching a climax. We know the enemy, and we have learnt what can be done if governments play an active part and co-operate with international bodies.

World Campaign.

The World Health Organisation today aims not merely at protection against malaria in danger areas, but the complete eradication of the deadliest disease in human history. This has been done already in many localities, by eliminating the insect carriers until the disease has disappeared.

Malariologists have now the answer to the threat of mosquitoes becoming immunised to D. D. T. or other insecticides. After malaria is abolished in the control area, they stop the use of insecticides. The mosquitoes come back, but are no more than a nuisance. If malaria should break out again, the insecticide is once more applied against the carriers, who are no longer immune.

As there are still probably 250 million malarious people in the world, with children as the worst sufferers, the prospect of being able to eradicate the disease in the near future by taking proper measures has an importance that hardly needs underlining.

In the centenary year of Ronald Ross's birth, perhaps we can find a moment to think gratefully of his work.

(With Acknowledgements to British Information Services.)

Polio Precautions & Simple Rules of Hygiene

By

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I am concerned today solely with a small but vital section of the HEALTH SERVICE. Any one who has been in contact with a case of Poliomyelitis should take special care over matters of personal hygiene. This sums up the effect of a series of simple rules which have been approved by the Ministry of Health and the Department of Health of other countries like England, America etc.

The Departments suggest that such written advice to contacts might take the

following form :

Give special care to your personal hygiene.

A. Most important: Wash your hands thoroughly after using the toilet and before you handle food. Keep your finger nails short and clean.

B. Don't share your towel, tooth brush, or nail brush with others.

C. When your handkerchief is soiled, change it and put the dirty one in water until it can be boiled.