WILLIAM GORGAS & PANAMA CANAL

William Crawford Gorgas (1854-1920) was educated at the University of the South Sewane, Tennessee, and at the New York University, where he became MD from Bellevue Hospital (1879). He entered the army in 1880 and was stationed at army posts across the country. In Texas he contracted a mild case of yellow fever and there after was immune to the disease.

US took control of the Panama Canal project on 4th May, 1904. de Lesseps Company had failed to build Panama Canal, because of the high death rate of workers. The Isthmus of Panama was facing the terrible problem of malaria and yellow fever, and the cause was not known. Twelve thousand workers died during the earlier French effort to build a canal, and 1,02,000 workers had died during the construction of Panama railway.

Gorgas was appointed Chief sanitation officer in the Panama Canal Zone, as the problem had to be tackled before the major work could begin on the canal. Crucial advances made by Ross in India, and Walter Reed in US, regarding the transmission of the two diseases and the role of mosquitoes, were immediately seized upon, by the American effort, under the leadership of Gorgas.

With the support of the chief engineer John Stevens, Gorgas was able to put his ideas into action. The sanitation work included clearing of land, establishing quarantine facilities and taking care of sick and injured laborers in the hospital. Places where stagnant water would collect were eliminated wherever possible and oil was spread on the surface of remaining pool, to destroy the larvae. About 7,00,000 gallons of oil and 1,24,000 gallons of larvicide (sulfur or pyrethrum) were used on the project per year; about 32,000 patients being treated per year. During the ten year period of construction, nearly $ 20 million was spent on health and sanitation program.

Despite opposition to his work, Gorgas cleared the area of these diseases, in less then a year. It was this, more than any other engineering feat that made it possible to bring the building of the Panama Canal to a successful conclusion. In 1914, the canal was opened and Gorgas was made Surgeon General of the U.S. army. The best tradition of Applied Medical Science was exemplified by Gorgas.

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