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## **Wood screw pump**

By John McQuaid, Staff writer

A single invention, the screw pump devised by local engineer A. Baldwin Wood, played a central role in shaping modern New Orleans and the Netherlands.

The newly created Sewerage & Water Board hired Wood fresh out of Tulane University in 1899 to help solve New Orleans' drainage problems, according to a 1974 account of Wood's life from the board.

This was no easy task -- the city was inundated by frequent heavy rains and floods, and its pumping system was not up to the challenge. But Wood went about his business with gusto, inventing new pumps and devices such as flap gates that allowed water to exit a channel without flowing back. He acquired 38 patents.

In 1913, Wood invented the 12-foot screw pump. It was based on the ancient Archimedes screw, a simple machine that siphons water up an incline. "This pump, then the biggest and most powerful in the world, later made New Orleans the mecca for the world's engineers," the history says.

The city installed the 12-foot Wood pumps in its pump stations, later adding 14-foot pumps he designed. The results were revolutionary. Newly drained areas could be settled and roads constructed. Disease rates fell because fetid canal water could be pumped out much faster.

Approximately 50 Wood pumps remain operational in New Orleans today.

Wood's pumps and other inventions drew worldwide attention, and he helped design drainage systems in Chicago and Milwaukee, as well as in Egypt, China, and India. In 1916, Dutch officials approached Wood, seeking his advice on the biggest land reclamation project in Netherlands history, the Zuiderzee Works in the northern part of the country.

As the story goes, the Dutch asked Wood to come to the Netherlands, an invitation he curtly declined. If they wanted to see his work, they could do the traveling, Wood said. The Dutch traveled.

Back in the Netherlands, they dammed the inland Zuider Sea, cutting it off from the North Sea and creating a large freshwater lake. When the dam was complete, engineers built two large pumping stations using Wood's designs. They were used to drain two large areas, creating new polders for agriculture and human settlement.