

Doc's Dugout - An Inning from our Past & Present

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THE DEVELOPMENT OF THE LAWN MOWER FOR SPORTS TURF (PART I)

The invention of the Lawn Mower is considered to be the single, most significant development for the improvement of sports fields in the world. Edwin Budding was a textile engineer in England and in 1830 he designed and developed the first lawn mower. A partnership was developed between Budding and John Farrabee who was the owner of the Phoenix Iron Works Company and was well known for producing high quality engineered goods. Their first lawn mower was a 19" reel mower with a wrought iron frame. Grass clippings were pushed forward into a tray-like box. The early mower was difficult to push through a grass lawn so a second handle was added so the mower could also be pulled from the front. By 1832, their original mower was patented and the two men realized they needed assistance in distribution of the machines. As a result, they entered into a licensing agreement with Ransomes of Ipswich, England, to produce and wholesale Budding's Mower. By 1840, over 1,000 mowers had been sold. But like so many inventors, Budding did not live to see the result of his labor; he died in 1845 at the age of 50.

In Arbroath, Scotland, a gentleman by the name of W. F. Carnegie had purchased one of Budding's mowers but discovered that it wasn't capable of mowing his 2 fi acre lawn. So Carnegie solicited the help of a local engineer, James Shanks, to develop a more versatile mower. Shanks designed a 27" machine that could be pulled by two men or a pony. Shortly thereafter, in 1842, Shanks patented his design in Scotland and later produced a second mower, a 42" mower designed by one of his employees. Following Budding's death, many other people became involved in the production of lawn mowers. Thomas Green of Leeds, England, patented the first chain-driven mower. This was a significant development since chains made the mower lighter in weight. By 1864, cast iron mowers were being produced. These mowers were more intricate in design because molten cast iron could be poured into venous "forms" or molds.

Lawn mowers manufactured in the United States began to be sold in England by 1870. The Pennsylvania mower was featured at the Worlds Fair in Chicago in 1878 and was produced by Lloyd, Supplee, and Walton. By the end of the 1870's, the American manufacturers were exporting a number of different machines to England. These mowers sold well because they were cheaper in cost and much lighter in design than their English counterparts.

By 1890, as more sports developed in the United States and the UK, better playing surfaces were demanded by the general public. To keep up with the times a new mode of power was added to the lawn mower, steam. The

inventor was J. Sumner of Leyland, England, who made mowers with reels in three sizes - 25, 30 and 36 inches. The boiler was fired by paraffin under pressure and was first used at Lord's cricket ground in London. By 1902, other manufacturers followed Sumner's lead as both Shanks and Green came out with steam mowers. Shanks came out with a 42" mower that weighed 1.5 tons and, if desired, could also be used as a roller. Shanks produced an oil-fired boiler while Green introduced a coal-fired version. Further developments followed with a prototype combustion engine mower produced in the United States in 1896 by W. J. Stephensen-Peach. Ransomes became the first company to patent and produce a gasoline-powered mower in 1902. This mower featured a 42" cut with a roller. The operator sat over the rear roller to balance the weight. The first machine of this type was purchased by the Cadbury Company for their sports grounds at Boumville, England.

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(Look for Part II in the next issue of the newsletter)

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