100 YEARS AGO – EDISON’S BATTERY PROVED ELECTRIC CARS CAN DO AN ENDURANCE RUN OF 1,000 MILES

By Michele Guttenberger

In 1898 Thomas Edison, developed an alkaline cell utilizing iron for the negative terminal and nickel oxide for the positive terminal. The electrolyte - a solution that conducts electricity was potassium hydroxide, similar to today’s nickel-cadmium and alkaline batteries. The cells were well suited to industrial and railroad use. The Edison alkaline battery was resistant to being overcharged or marred from remaining uncharged for long periods of time. These batteries had a voltage of 1 to 1.35 volts.

Although Edison had a close friendship with Henry Ford, Edison believed in electric cars. He promoted the electric car as cleaner, quieter and easier to drive than gas powered automobiles. The Edison Electric Company was the battery supplier to S.R. Bailey & Company which only manufactured electric automobiles. The company built these electric automobiles in their Amesbury, Massachusetts plant from 1907 to 1915. Their showcase model was the Bailey Electric Phaeton. It was touted as a cross country vehicle which could drive 100 miles on a full charge under ideal conditions. This was a very impressive claim since electric cars in this era had a very limited drive time per battery charge of 20-2 miles.

Bailey and Edison did not simply make this battery endurance claim; they set off to prove it. On September 17, 1910 they competed with gas powered cars in a challenge - the 1,000 mile auto endurance run. The road tour started from the Touring Club of America located on Broadway and 76th Street with a final climb up Mt Washington, New Hampshire before returning home. The Bailey made its first battery charge in Waterbury Conn. On the 3rd night the Bailey had reached Manchester VT meeting up to the challenge of the Peru Mountain with rough roads and heavy grades.

Their big gas powered competitors laughed at the small electric cars claiming they would never make this challenging terrain. But the electric cars did. The only hitch the electric cars faced was lack of water power at the electric lighting station in VT to recharge. The Bailey remained undaunted driving through Clairmont and Newport NH past Sunapee Lake with a night stop at Plymouth for recharge. They got to their meet-up -the Mt Washington Hotel in Breton Woods. They only experienced a slight delay from their planned scheduled time.

After their rest in Breton Woods the cars were prepared for their ascent to the summit of Mt Washington. This ascent would be 6,000 feet. It was an amazing site to see 2 electric cars each with only a 2 ½ horsepower motor pulling a 1 ton load through a 14 - 27 percent grade.

The New York Times exclaimed in marvel over the battery that brought power to these cars. “It seems incredible that the power of streams and coal can be changed to an invisible force capable of being stored in the little steel cans of this battery to be drawn on at will”.

Unfortunately, the electrics could not keep pace with the more powerful gas-fueled cars and in the end lost out to the gasoline powered automobiles. By 1915 Bailey ended production of the electric automobile and Edison had also shifted his focus to other technology. However, Edison still retained his own personal electric automobiles. They can still be seen today at his estate garage at Glenmont which is also part of the Thomas Edison Museum in West Orange, NJ.