



# Boss Kettering and the Barn gang

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Managing Innovation

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# Charles (Boss) Kettering and the Barn Gang<sup>1</sup>

Driving a car in the early 20<sup>th</sup> century was hard work. To be more specific starting a car was hard work – a long way from today’s instant ignition, back then cars needed hand cranking which meant someone having to stand in front of the car and turn a handle. One night Thomas Watson (later to become head of IBM) got off the train in Dayton, Ohio and was met by two men, Charles Kettering and Henry Leland who offered him a lift. Watson knew Kettering and his reputation as somewhat absent-minded and so when Kettering sat in the driver’s seat and adjusted the controls Watson assumed he had forgotten that he needed to get out and crank the engine first. To his astonishment Kettering simply pushed a button, and the car started. He had just experience the first live demonstration of the electrical ignition switch<sup>2</sup>

This was only one in a long series of inventions which Kettering came up with. Born on August 29, 1876 he studied mechanical and electrical engineering and supported himself through college by working as an installer for the Star Telephone Company in Ashland, Ohio. He took his theoretical and practical knowledge with him to the National Cash Register Company and began to have a major impact as an inventive engineer. The ‘impossible’ task of making the world’s first electric cash register (previously the drawer mechanism was hand operated) was only one of the many innovations he brought to that company. Eventually he left, keen to set up is won business and explore opportunities in the newly growing car industry; with his friend Edward Deeds he started the Dayton Engineering Laboratories Company (DELCO for short).

Working at DELCO and later with general Motors which bought the company Kettering produced a stream of important innovations including automotive lighting and ignition systems, lacquer finishes for cars, antilock fuels, leaded gasoline. His work found application in other sectors – for example he is credited with introducing Freon (essentially the world’s first fluorocarbon) to the world of refrigeration – now a problem but at that time a key enabler in the expansion of the industry into the domestic world.

Like Thomas Edison he was not only a gifted engineer but also recognised the need for a team and many of these inventions came from a group who became known as ‘the Barn Gang’. Kettering brought in a wide variety of skills and background

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<sup>1</sup> Ref Charles F. Kettering: A Biography  
By Thomas Alvin Boyd

<sup>2</sup> United States Patent #1,150,523, was issued to Charles Kettering of Dayton, Ohio in 1915.

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disciplines – a diverse group of craftsmen and engineers who were united in their love of a challenge. As he once observed, *'development work is always slightly organized chaos!'* and the Barn Gang typified this. Working long and late was typical - as one of the Gang put it, *' Say! Quit at five-o-clock? Boy, we didn't know there was any five-o-clock! All we knew was light and dark!'* The creative buzz was fuelled in part by music – but the team only had one record to play on their old gramophone so many of the major innovations which revolutionised the car industry were born to the repeated sounds of 'When we were young, Maggie' played over and over and over again!