Henry Ford

LESSON IDEA
To show how Henry Ford used his own creative skills, and the principles of competitive free enterprise, to prosper himself while benefiting millions of others.

THE ARMIES of the North and the South had barely finished burying their dead at Gettysburg, and John D. Rockefeller had hardly begun raking in profits from an oil refining business in Cleveland, when William and Mary Ford of Dearborn, Michigan, announced the arrival of their firstborn son. The date was July 30, 1863; and the infant, whose name was Henry, was destined to become one of the most famous millionaire manufacturers in America.

As the years rolled by, three more sons and two daughters were born to the Fords, and their fortunes increased with the number of their offspring. The forty acres they farmed grew to eighty, then to two hundred thirty. Their farm was known as one of the finest in the district; and in the opinion of William Ford, the best life in the world — the one he wished for each of his sons — was that of a farmer. But Henry had other ideas. In his biography he tells us: "My earliest recollection is that, considering the results, there was too much work on the place. That is the way I still feel about farming ... There was too much hand labor on our own and all other farms of the time. Even when very young I suspected that much might somehow be done in a better way. That is what took me into mechanics — although my mother always said that I was a born mechanic."

Henry's penchant for fixing things or making things was noticeable when he was only six years old. He began collecting scraps of metal, such as old knife blades, clock springs, bolts, nuts, old files, and broken bits of farm machinery. He spent much of his spare time during his school years at the blacksmith's shop in Dearborn, learning to make tools. Eventually he built a forge and bellows in his farm workshop and found an anvil on which he could hammer hot metal into any shape he chose. As biographer Cy Caldwell writes: "He soon began to do the repairs on broken tools and farm machinery, not only on his father's farm but on the neighbors'. By the time he was twelve he was the unofficial — and usually unpaid — repairman for the entire neighborhood. He did it, not for profit, but because he loved the work. To repair something, to make it work again, was his chief delight. If anyone paid him, he used the money to buy more tools and materials ..."

"When he was thirteen, he began to build a small engine and finally constructed one that ran. And this feat, remarkable for any boy of his age, he accomplished with no materials other than pieces of scrap metal salvaged from the blacksmith shop and from broken farm machinery."

Henry's passion for mechanical work pulled him away from the farm and into the city soon after he finished grade school. His first job was as an apprentice machinist at James Flower and Company, one of the best machine shops in Detroit. Flower paid him $2.50 a week and expected him to
report for work at six in the morning and stay until seven in the evening. But neither long hours or short pay mattered in the slightest to the young man who loved machinery and had come to the city to learn all there was to know about how things work.

TWELVE YEARS LATER, in 1892, Ford was still learning — now as a mechanical engineer at the Edison Illuminating Company in Detroit. It was the year that the first American automobile made its appearance; and like most mechanics of the day, Henry was fascinated by the mechanical wonder and determined to make one of his own.

Working in his spare time with tools that were crude and inadequate, the young mechanic finally put a working model together by trial and error in 1896. Biographer Keith Sward describes Ford's first automobile as a "gasoline 'quadricycle,'" its chassis a buggy frame mounted on four bicycle wheels. Its air-cooled motor had two cylinders, which Ford had made by hand from the exhaust pipe of a steam engine. Having no reverse gear, the vehicle could move forward but not backward. The power from its motor was transmitted to the rear wheels by a revolving leather belt.

"From the standpoint of mechanics or design, the car had no novel features. It was like most of the other automotive models of the period . . . . The significance of the Ford model of 1896 . . . is the fact that it worked and that it encouraged Ford to go ahead."

In the next several years, Ford brought out two more experimental cars; and by 1899 he was a recognized pioneer in the field. Farsighted businessmen and inventors, like Thomas Edison, were predicting a great future for the auto; but the American public still clung to its carriages and horse flesh and did all it could to discourage the enterprising automobile owners. In San Rafael, California, for example, an ordinance was passed which required the driver of an automobile to come to a dead stop within three hundred feet of every passing horse. In Vermont it was mandatory for every motorist in motion to employ "a person of mature age" to walk one-eighth of a mile ahead of him, bearing a red flag in his hand. In 1902 the speed limit within such cities as Savannah, Cincinnati, and San Francisco was eight miles per hour; and most large cities forbade automobilists to use parkways, such as Chicago's Michigan Boulevard, because they were reserved for horse-drawn vehicles. The farmers of the nation bitterly denounced the "devil wagons" because they threw their teams into a panic.

This prejudice against motor cars was probably based on three things: The early models, built entirely by hand, were too expensive for most people to buy (oats were cheaper); the noisy horns and engines frightened both men and beasts; and the mechanical wonders were always breaking down at the side of a roadway, which made the owner the subject of snide remarks, jeers, and ridicule from passersby. The public was destined to cling to its horse and carriage until someone built a car that would run dependably, and one that most Americans could afford to buy. In other words, the new invention had to be translated into the realm of practical manufacturing before it would be accepted.

FORD'S EXPERIMENTAL models and his test runs through the streets of Detroit (a privilege for which he had a special permit to protect him from the violent acts of draymen and teamsters) attracted the attention of a group of local capitalists who wanted to go into the business of making and selling cars. In 1899, these financiers invited Ford to join them as part owner and chief engineer in a company called the Detroit Automobile Company. The same year another pioneer, Ransom E. Olds, as manager of the Olds Motor Works, began to produce an inexpensive and well-built car known as the "merry Oldsmobile." And while Olds did well in the business, Ford was a complete failure. The problem
seemed to be that he was building the wrong car for the wrong market. The farmer-mechanic had spent all of his time and resources perfecting a high-priced racing car that few people wanted to buy. He repeated the same mistake the following year in a new company with a new set of backers, and was again a failure.

How does Ford’s early career compare with John D. Rockefeller’s? Was Ford interested in the automobile business because of the “golden profits” he envisioned, or because of his love for the type of work he was doing? [Encourage discussion. Remind family members of Rockefeller’s original aversion to the oil industry and his later decision to become a refiner because of the “golden profits” that were to be made. Contrast Rockefeller’s lack of enthusiasm for the work of oil drilling with Ford’s passion for working with machinery.]

Ford was aware that he was not the only man in Detroit intent on a career in the automobile business. Other car builders of the day, men like Pierce, Winton, Packard, and Chevrolet, were all looking for financial backers who would supply capital for factories to manufacture cars. Each builder sought to show off his engineering talents to the “money men” by either high-speed racing or long-distance driving. Ford concentrated on racing.

When his prowess as a “speed demon” began to make headlines in magazines and newspapers, opportunity knocked. Ford was approached by Alex Y. Malcomson, a prosperous coal dealer with a modest fortune and a desire to invest in the new automobile business. The meeting of financier and mechanic ultimately led to the founding of the Ford Motor Company.

How does this compare with Rockefeller’s start in business? [Contrast Ford’s zest for competition with Rockefeller’s aversion to it. Both became millionaires, yet Ford used his talents in competition with other car builders while Rockefeller used his skills to destroy any producer, refiner, or distributor who dared enter the oil business.] Which man do you admire most?

The Ford Motor Company did well in its first years of business. Its initial product was a very practical two-cylinder car, “built to stand the severest strains” with “ample power for the steepest hills and the muddiest roads.” In the first fifteen months of the company’s existence, more than 1700 cars were sold at the modest price of $850; and by 1906, the demand for the Ford product was so great that the company was forced to expand its plant to a new three-story building.

Success led to experimentation as the company decided in 1906 to try its fortunes in the “luxury” field with new models ranging from $1000 to $2000. Sales plummeted, and Ford immediately reversed his course and marketed a lower priced model in 1907. Sales went up.

But the Farmer-Mechanic was still only on the fringe of his greatest success. Early in 1908, according to Sward, “Ford had the great inspiration of his life. At his insistence the company announced that henceforth it would limit its efforts to the production of a single, standardized, relatively inexpensive car. . . . Such was the Model T. . . . It was what Ford had hoped for, 100 percent utility. It was light and sturdy, built for performance rather than looks, a tough, plain, black oblong box mounted on wheels . . . .

“More than any automobile in circulation at the time, it matched the farmer’s purpose and the pocketbook of the man in the street. Its mechanical principles were so simple that with a little time and patience they could be readily mastered by any amateur. And no contemporary car was so well adapted to what the world in general and the United States in particular had to offer in the way of roads and thoroughfares.

“In its native environment the first Model T and every other motor car of the period had to conquer a roadbed that had been handed down from the horse age. Few tougher proving grounds can be imagined. Vast sections of the American hinterland were without well-defined highways of any kind. Treacherous passes were the rule in the Rocky Mountain states. In the settled farming sections of the Mississippi Valley the typical roadway was a narrow, unimproved dirt track, ground to powder in the dry season, and all but impassable when it rained or snowed.

“But whereas the perilous backroad and the gumbo of the plains states were too much for the average car, they were the making of the Model T. By contrast with other models of the day, Ford’s car
of 1908 was tough, compact and featherlight. Because of its high-riding chassis, it could pass over stretches of rock and quagmire like a man on stilts. To be sure, the vehicle shook and rattled with the rest. It was all bone and muscle with no fat on its frame. But as soon as it took to the road it proceeded to prove that it was built to get there, despite hell and high water:"

Within a year the Model T was the trade's best seller and leading money-maker, outstripping every other car on the market, both in sales and profits. The "long black boxes on wheels" were not sold; they were simply, in the words of Ford's business manager, handed over the counter. The reason was simple. The automobile was no longer a "rich man's plaything" that broke down every mile along the way. Ford had built a car that ran and one that was priced right. The sales went from 11,000 in 1908 - an unbelievable number for that year - to 18,664 to 34,528 in subsequent years. Those who had predicted that Henry Ford would go broke in six months when he announced his intention to sell only one standard, inexpensive model started back-tracking. The car builders who had joked about Ford's "mad" decision to stick with the same basic model year after year and paint it any color the customer wanted - as long as it was black - stopped laughing. None of them had the vision to see the advantages of lower production costs through standardized production, and the increased sales which would result. It was an idea that was to make a fortune for Henry Ford - and at the same time benefit every one who bought a Model T.

Concluding Thought

The competitive capitalism practiced by Henry Ford was very different from the monopolistic capitalism imposed upon Americans by John D. Rockefeller. Both men, of course, made millions; but Rockefeller made his by coercion, force, and control. He forced every consumer of oil to pay the high price he set, and he compelled every competitor to submit to his will or be crushed. In the process, he undoubtedly destroyed the spirit of many men who might have created new methods or tools under the stimulus of competition, but who had no incentive to do so under the economic dictatorship of monopoly.

Ford, on the other hand, made no attempt to eliminate his competitors. Let anyone who wanted to manufacture cars enter the field. If he could do a better job at a lower price, so be it! Henry Ford would have been the first to applaud the achievement - and to begin the next day to make changes in his own autos based on the improvements pioneered by his competitor.

In a very literal sense, this is what free enterprise is all about - being free to compete in any enterprise desired, free to create new ideas, and free to build upon a competitor's experience. Economic freedom combined with political freedom is one of the secrets of America's amazing prosperity.

When Henry Ford started mass production of the Model T, for example, he used many of the ideas and methods already developed in the factory of his competitor, Ransom Olds. He also used the principle of interchangeability of parts pioneered in the 1700's by Eli Whitney. If the creativity of either Whitney or Olds had been stifled, controlled, or crushed by an economic monopolist such as Rockefeller, these ideas would not have been in the marketplace for Ford to use or build on. And Americans might still be in the horse and buggy era.

Freedom and competition encourage creativity; and creativity brings progress. Next week we'll study this principle in more detail.