

## Lives that Lift

C L Paddock 1935



### The Story of Rubber: Charles Goodyear

Suppose when it rained we did not have any rubbers to wear, nor any rubber raincoat to put on? And imagine if you can what it would mean not to have rubber for hot water bottles, automobile tires, and many other useful things. We would hardly know how to get along, would we? The story of the invention of rubber goods is an interesting one.

The first rubbers to be sold in the United States were put on the market in the year 1820, having been sent from South America, where they had been made by the natives. They made crude wooden lasts of wood and these they dipped into the sap of the rubber tree. After being dipped, the lasts were hung up to dry, and then dipped again and again until twenty or thirty coats of rubber were added. The wooden last was then removed and the shoe was ready for market.

Of course there was a demand for the rubbers, every one wanted a pair; but most people could not buy them, for they were too expensive. The manufacturers in the United States felt sure they could make a lot of money if they could make rubbers, so they determined they would manufacture them here in North America. They began to make rubbers and rubber cloth, but the shoes they made in winter melted in the summer sun. So the factories went bankrupt; lost everything they had. One of these manufacturers, who was more determined than the rest, began to look for some man to find a way of making rubbers, and the man he chose was Charles Goodyear.

Goodyear's parents wanted him to be a minister, but the young man felt God had called him to invent some way of vulcanizing rubber, and he set to work with a will, determined that nothing would stop him until his goal had been reached.

He made his first rubber shoes in the winter of 1835 in his own home. From the crude rubber gum, melted by his own fireside and kneaded by hand, and rolled with a common rolling pin, he made rubber cloth and fashioned it into shoes. They looked nice and black and shiny, but when the summer sun came again they melted into sticky, gummy, stinking paste. But this did not discourage him.

Goodyear consulted chemists to see if he could get any help, but his search was in vain. Although he did not know much about chemistry he determined he would experiment himself. These experiments were costly and soon took all his money. This would have stopped most men, but not Goodyear. He

visited the pawnshops and sold his wife's jewels and any unnecessary household articles in order to secure money to continue his work.

He moved to the city of New York, and lived in a room lent him by a friend, buying materials for his experiments on credit from a near-by druggist. Here he made some sheets of rubber which encouraged him greatly. They seemed almost perfect, and he secured a patent and some of the cloth was sold. He soon discovered, however, that a drop of acid made the cloth gummy and useless.

Much of the time he was sick with dyspepsia. Officers of the law were always on his trail to collect some debt. He was often in jail, and never out of danger of arrest.

Friends loaned him money to start a company and they built a factory on Staten Island, where they made rubber cloth. A panic swept the country and Goodyear was forced to beg bread for his family.

So-called friends lost confidence in him. They called him a rubber maniac. One of his friends, when asked how Mr. Goodyear looked, said, "If you see a man with an India-rubber coat on, and an India-rubber cap, and in his pocket an India-rubber purse, with not a cent in it, that is he." He advertised his material by wearing it, which also served to test it for him. He believed in himself although others did not.

At one time he secured a contract from the United States Government for one hundred and fifty mail bags. These were soon completed and he left them in the factory to dry and season. When he returned a short time later he found them melted

Even though others had no faith in his project, he worked on day after day and often long into the night, year in and year out. At night he could be seen baking the rubber in his wife's oven. Long after others were in bed he would sit watching the results of one hour, two hours, three hours, five hours in the oven. He boiled rubber in his wife's saucepans, toasted it before the fire, and roasted it in the ashes.

To secure more intense heat he built an oven of his own, and here he continued his experiments in spite of poverty, ridicule, death in the family, and discouragements of all kinds.

He worked, studied, experimented, planned, sixteen to eighteen hours a day and then kept a writing pad close by his bed on retiring, so if any ideas came to him as he lay rolling on his bed at night, he might jot these ideas down.

He was partially rewarded in 1844 by discovering a process of perfectly vulcanizing rubber, and while he enjoyed little fruit from his years of untiring labor, the world today is reaping from what he sowed, profiting from his invention.

He died penniless in the year 1860. Though poor, he was happy that he had accomplished the work he felt in his soul God had called him to do, happy that others were to reap from his sowing.

Just before his death he said, "In reflecting upon the past, the writer is not disposed to repine, and say that he has planted and others have gathered the fruits. The advantages of a career in life should not be estimated exclusively by the standard of dollars and cents, as it is too often done. Man has just cause for regret when he sows and no one reaps."

Goodyear is now a name known by every school boy or girl, and some form of vulcanized rubber is used in every home, thanks to Mr. Goodyear.

We should not only be thankful to Mr. Goodyear for his invention, but learn a lesson from his life of determination, perseverance, and stick-to-it-iveness. Even when others lose confidence in us, we must work on.

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