

LETTERS FROM GRANDPA # 53

Dearest Grandchild,

Last week, Don Smith, a dear friend from Mexico, had a pace maker installed. Don, and his wife Ginger, live on a large ranch in Mexico. They have over 50 horses and their “vaqueros” (cowboys) herd cattle much like they did 100 years ago. Mary, and several of the Chamber’s children, have visited this ranch and enjoyed unlimited riding privileges on their well trained horses. At any rate, I sent Don some information about the man who invented the pacemaker and thought you might be interested too.

The inventor of the implantable pacemaker was the lat Dr. Wilson Greatbatch. Many years ago I heard him speak at a Scripture Science Forum in Joplin, Mo. Because I am unable, at this time, to put my hands on a copy of his remarks on that occasion, the following is a condensation of an excellent article about him titled “Man of the Millennium”, written by Joseph Radder.

You’ve probably never heard of Dr. Greatbatch. There is a reason why Dr. Greatbatch’s name is not as familiar as that of Jonas Salk, Thomas Edison, and Alexander Graham Bell. That’s the way he wanted it. As the inventor of the “implantable pacemaker” he could have been both rich a famous, but chose instead to liven a modest life in the obscure town of Clarence, N.Y. His home is a small, red brick, 19th century school house. He is quick to point out that there were pacemakers before, but they were large and cumbersome units outside of the body. The invention that God gave him was both “implantable” and “practical”.

His garage workshop features his “desk” which is merely a door resting on two filing cabinets. His book shelves are wooden planks on piles of bricks. Wilson is a deeply religious man and is quick to credit God for all of his successes. He holds over 150 patents and has received numerous other honors.

During W.W. II he survived many close calls. While others died around him, he concluded that God had perhaps spared him for a purpose. It seems that the pacemaker was a part of God’s plan for his life. As an electronic genius he helped develop the instrumentation that would accompany monkeys in outer space. This experience was invaluable in developing the pacemaker. While working as an assistant professor of electrical engineering at the University of Buffalo another key part of the puzzle came into focus. He “accidentally” discovered how to make an implantable pacemaker a reality. In retrospect, of course, he knows this discovery was not an accident at all. God was orchestrating his life for a purpose.

Greatbatch describes the event this way: *“The oscillator required a 10,000 ohm resistor at the transistor base. I reached into my resistor box for one, but I misread the color coding and got a 1 megaohm resistor by mistake.” When he plugged in the resistor, the circuit started to “squeg” with a 1.8 millisecond pulse followed by a 1 second interval during which the transistor was cut off*

and drew practically no current. 'I stared at the thing in disbelief,' he said. Wilson Greatbatch immediately realized he had discovered the way to drive a human heart."

It wasn't easy to find a heart surgeon willing to try Greatbatch's idea. Finally, Dr. William Chardack, chief of surgery at Buffalo's Veteran's Hospital, agreed to help. On May 7, 1958 the remarkable pacemaker was successfully implanted in a dog. After two years of extensive trials it was deemed ready to be implanted in humans. The year was 1960. Praise God, the pacemaker has been a remarkable success and multiplied thousands of lives have been saved!

When faced with uncertainties, Dr. Greatbatch would always take his problems to the Lord in prayer. He smiles: "*and I always got the answer*". When he needed a reliable power source, for example, a Swiss watch company came up with just what he needed at just the time he needed it. When he needed a unique material that would continue to function in the warm, moist, environment of the human body, NASA providentially provided the answer to his prayers. In retrospect, of course, he always gave God the credit.

At the time of this amazing discovery, Greatbatch was an employee of the Taber Instrument Corp. They were enthusiastic, but balked at investing in the project because of the financial risk. No one, not even Lloyd's of London, would sell them insurance. With only \$3,000 in savings, Greatbatch launched out on his own. Working with just God allowed him to make faster progress because he didn't have a bureaucracy to fight. Early in the 1960s God finally opened the door, and Greatbatch entered into a licensing agreement with Medtronic. They would manufacture the pacemakers, and Greatbatch himself would provide the batteries. The battery business itself grew to include three large plants and research facilities on Wehrle Drive in Clarence. Wilson Greatbatch Ltd. is a unique corporation. Among other innovations, it fully funds college tuition and books for all employees and their children.

Dr. Greatbatch didn't believe in retirement and developed a solar powered canoe in 1991. His philosophy is summed up in these excerpts from his 1987 commencement address at Clarkson University: "*Success and failure are relatively unimportant in living a happy life.... I don't think the Good Lord really cares if you succeed or fail. But he does care that you try and try hard...I should not crave success...The reward is not in the results, the reward is in the doing.... No one in the world has anything that I want badly enough to take it away from them...Don't fear failure, don't crave success...Things will work out. You will find true happiness and the Lord will smile on your efforts.*" Dr. Greatbatch died on September 27, 2011 at the age of 92.

Perhaps God has a call on your life as he did in the life of Wilson Greatbatch. Though we have mentioned this Scripture before, it still bears repetition. **"Therefore, my dear friends, as you have always obeyed — not only in my presence, but now much more in my absence — continue to work out your salvation with fear and trembling, for it is God who works in you to will and to act according to his good purpose."** (Phil 2:12-13)

First God gives the dream or the "will". Then He gives the ability to "act" and make the

dream become a reality. So keep “willing”, and keep “acting”.

I love you,

Grandpa Boyce