butterfat (n): the fat in milk; used to make butter
chemistry (n): the scientific study of the elements and their interactions with each other
consumers (n): people who buy and use products and services
engineering (n): the science of design and building things such as roads, buildings, and machines
independent (n): not needing or wanting help
laboratory (n): a room or building people used for scientific research
modest (adj): not proud or thinking better of oneself than others
perfectionist (n): someone who does not tolerate flaws
scientist (n): a person who is expert in one of the sciences

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INTRODUCTION

When people in Madison, Wisconsin, hear the word “Babcock,” they think of ice cream. Babcock Hall on the University of Wisconsin-Madison (UW-Madison) campus is famous for the ice cream made there. But the hall was named for Stephen Babcock who was famous for far more than ice cream.

Stephen worked as a scientist at UW-Madison. He often laughed aloud in the university’s chemistry buildings as he did his experiments. That is how much he loved his work.

He did not want to be rich or famous. Stephen wanted to find ways to make people’s lives better. His work led the way to the discovery of vitamins A and D, and he found a new way to make cheese. The Babcock Test made him famous. This tool improved the dairy industry in Wisconsin and around the world.

Today, Stephen’s name is famous for the ice cream made in Babcock Hall on campus. That is a fitting honor for Stephen Babcock, the curious, modest, and laughing man who found a way to measure butterfat and change an industry.

Stephen’s desire to help others motivated his work. What motivates you to accomplish your life goals?
CONCLUSION

Stephen died of heart failure on July 2, 1931.

He helped improve the dairy industry with the Babcock Test. Stephen also paved the way for other discoveries like vitamins A and D.

Above all, he wanted to improve others’ lives. That inspired his work and did not end when he died. Stephen willed money to UW-Madison. That went to improve a library and for student scholarships. A student home on campus was named after him.

SCHOOL DAYS

Stephen was born on October 22, 1843. His parents’ names were Peleg and Cornelia Babcock. His brother Linn was born seven years later. The family lived on a sheep farm in New York. Stephen enjoyed spending time outdoors. One time, a bee stung Stephen. This made him blind in one eye.

Stephen went to Tufts University at age 18. He took classes like Greek and Latin. His grades were not very good. He was at the bottom of the class but this did not stop Stephen.

Stephen (above) did experiments to learn more about how food nutrition affects animals. His studies helped scientists like E.V. McCollum discover vitamin A and Harry Steenbock find vitamin D.
He took **engineering** classes at another New York college after graduating from Tufts. But Stephen moved back home to care for the family’s farm after his father’s death. Stephen moved several years later to work a different farm and attend college at the same time.

Stephen earned his master’s degree in chemistry. He then went to Germany and earned his Ph.D. Stephen moved back to New York in 1881, and worked as an agricultural chemist. He researched cattle feed.

Stephen took a scientific approach toward many things in life, desiring evidence for claims others made. He would tell his students, “Just because you see it in a book is no reason to believe it so. Let’s look into it further.”

**Loving Life**

Stephen liked living a simple life with his wife, May. He munched peanuts while at sports events. Car rides with his wife were also a favorite pastime.

May died in 1927 when Stephen was 84. Friends told him to move somewhere he could be cared for. But he wanted to be independent. Stephen walked to work daily. He cared for his messy but lovely garden.

Stephen Babcock married Mary (May) Crandall on October 27, 1896. The couple did not have any children.
The Babcock Test was reliable and low-cost. Consumers in Wisconsin and around the world trusted more in the dairy industry. Modest Stephen did not want praise for his work. He had not created the Babcock Test to become rich or famous. He did so to improve peoples’ lives. The Babcock Test won many awards around the world. Stephen never took any money for his work.

Wisconsin Idea

Stephen Babcock did his work because he wanted to help better people’s lives. This belief is similar to the Wisconsin Idea.

The University of Wisconsin (UW) has followed the Wisconsin Idea since its beginning in 1848. The Wisconsin Idea is the belief that the university should develop programs and do research to help all Wisconsin citizens. The UW’s research should also be used to solve problems and improve health, quality of life, and the environment. The Wisconsin Idea is still followed on UW campuses.

Wisconsin’s Dairy Industry

Many Wisconsin farmers grew wheat in the early 1800s. Later, farmers were not making much money growing wheat so they raised dairy cows instead. Dairy farming was popular in Wisconsin by the 1880s. Some farmers added water to their milk so they had more to sell. This unfair practice caused some consumers to distrust farmers.

Milk with more butterfat makes better dairy products. Milk with water added does not. Creameries and cheesemakers wanted to test milk’s butterfat content to prevent farmers from adding water. There were some butterfat tests, but they were often wrong. The industry needed a better way to measure milk’s butterfat content.

Wisconsin is known as “America’s Dairyland.” In 2014, 27.9 billion pounds of milk and 11.5 billion pounds of cheese were made in the state. Wisconsin has been the top cheese producing state since 1910.
THE BABCOCK TEST AND SYLVIA

Stephen moved to Wisconsin in 1888. He worked for Dean Henry as a chemist at UW-Madison. The dean asked Stephen to create a butterfat test.

He set to work in his laboratory. Stephen’s first goal was to separate butterfat out of milk so it could be measured. He found adding acid to milk worked.

Next Stephen needed to measure the butterfat. He saw that spinning the acid and milk mixture caused butterfat to rise to the top. The fat could then be measured.

The dean wanted to tell others what Stephen had found. But Stephen was a perfectionist. He told the dean he could not tell others because the test worked for all but one cow named Sylvia. The dean told Stephen he would give him a little more time to improve the test. Stephen soon succeeded. The Babcock Test was released in 1890.

Roaring Laughter

Stephen was known for being a joyful and pleasant person, as well as for having a hearty laugh. He even had the nickname “The Laughing Saint of Science.” While working at UW-Madison, Dean Henry could often hear Stephen’s laughter from four floors above him. He asked Stephen to try to control himself and set a better example for students. But Dean Henry learned it was impossible to control Babcock’s laughter. So he learned to enjoy Babcock’s merry spirit.

Stephen designed a special graduated cylinder that had markings on it that were used to measure the milk’s butterfat.

Dean Henry (right) recruited Stephen in 1887 to get him to work at UW-Madison.

When students at an elementary school learned how to use the Babcock Test, it was simple and easy for them to use.