Bill Harley and Arthur Davidson

Innovation on Two Wheels

For additional resources, visit pbswisconsineducation.org
Biography written by:

Becky Marburger
Educational Producer
Wisconsin Media Lab
Glossary

culture (n) . . . . . . . a way of life; how people do things like eat, take care of their young, travel, etc.

design (n): . . . . . . . a plan or a pattern used to make something

donate (v): . . . . . . . to give money, materials, or time to a person or a cause

engineer (n): . . . . . . . a person trained to design and build things like engines, machines, and buildings

innovate (v): . . . . . . . to improve something that already exists

mascot (n): . . . . . . . a person, animal, or thing that represents a group and is supposed to bring good luck

mold (n): . . . . . . . a hollow form that a substance like sand or metal is poured into to make a specific shape or tool

motorcycle (n): . . . a two-wheel vehicle that has an engine; can also be called a bike or motorbike

reliable (adj): . . . . dependable; able to be trusted

Table of Contents

Introduction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Boyhood Friends . . . . . . . . . . . . . . . . . . . . . . . . . 3
Working Together. . . . . . . . . . . . . . . . . . . . . . . . 4
Making it Better . . . . . . . . . . . . . . . . . . . . . . . . . 6
Harley-Davidson Motor Company . . . . . . . . . . . . . . . 7
Conclusion . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
Glossary . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
Innovating means doing something in a new way. Sometimes a person needs to be a little innovative to find an answer to a problem.

That is what Bill Harley and Arthur Davidson were. It was challenging for them to ride their bicycles up hills. They used innovation to improve the motorcycle, which was the answer to their problem. They not only made traveling easier, but they also turned their innovation into the world famous Harley-Davidson Motor Company in the 1900s.

Bill and Arthur had a problem, and they found a solution, which was to build a better motorcycle. Their innovations not only made their lives easier, but also made travel safer and more efficient for people around the world. The Harley-Davidson Motor Company also helped make motorcycles very popular. The business that started in their parents’ basement is now one of the top companies in Wisconsin and the United States!
Both Bill and Arthur continued to work for the Harley-Davidson Motor Company until their deaths. Bill enjoyed designing new and better motorcycle engines including the “Knucklehead” which became a very popular Harley. He also liked to hunt, fish, and etch. Bill died on September 18, 1943 after he had a heart attack.

Arthur was very active in supporting the American Motorcycle Association. This organization taught people about the motorcycle lifestyle. He also enjoyed raising dairy cattle on his farm, and he donated a lot of money to groups like the Boy Scouts. Arthur and his wife died on December 30, 1950 in a car accident.

Boyhood Friends

William (Bill) Harley and Arthur Davidson became friends when they were young boys. Both were born in Milwaukee, Wisconsin. Bill was born on December 29, 1880 and Arthur was born on February 11, 1881. Bill was a quiet, tall boy, and Arthur was talkative and short.

They liked to ride their bicycles to a nearby lake to go fishing. It was often hard for Arthur and Bill to pedal up the hills to and from their fishing trips. This was a problem for them.

Arthur and Bill saw an inventor ride his motorcycle in Milwaukee in 1895. They knew this would be the answer to their problem. They thought a machine like that could help make traveling easier for them and other people. The boys wanted to learn more about the motorcycle so they could make their own.

<table>
<thead>
<tr>
<th>Name</th>
<th>Arthur Davidson</th>
<th>William Harley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Born</td>
<td>February 11, 1881</td>
<td>December 29, 1880</td>
</tr>
<tr>
<td>Died</td>
<td>December 30, 1950</td>
<td>September 18, 1943</td>
</tr>
<tr>
<td>Spouse’s Name</td>
<td>Clara</td>
<td>Anna</td>
</tr>
<tr>
<td>Children’s Names</td>
<td>Arthur, James, Margaret</td>
<td>Ann, William J., John</td>
</tr>
</tbody>
</table>
Bill and Arthur moved apart from each other in 1896. Bill lived on the north side of Milwaukee, and Arthur lived on a farm in Cambridge, Wisconsin. Living in different cities did not end their friendship. They often wrote letters, telling about their lives and new jobs.

Bill worked as a designer drawing new plans, or **designs**, for making bicycles in a factory. Arthur was a pattern maker. He used saws to cut wood into shapes that looked like parts of a machine. These patterns were used to form **molds**. To make a machine part, hot melted metal was poured inside the mold. This was a very fast and easy way to make new parts and tools.

**Pattern Making**

These are molds that are used to make metal machine parts. A pattern maker creates wood pieces that are used to form molds like this. These wooden pieces are called patterns. To make a mold, sand, metal, or plastic is poured around the pattern. Once it hardens, the pattern pieces are taken out leaving spaces and dents in the mold. Now metal can be poured into the mold so identical parts can be made over and over again. This is called casting.

**Conclusion**

The Harley-Davidson Motor Company made more and more motorcycles. The United States and Great Britain even used Harleys during World War I and World War II. The bikes became well known around the world because of how well they were built and their reliability.

The partners and their brothers were very good business leaders. They treated their workers fairly and had a reputation for building high-quality machines, which is why they were inducted into the Labor Hall of Fame in 2004. Bill Harley and the Davidsons knew their sons would be strong business leaders as well. In 1942, they made their sons the new company leaders.

Harley-Davidsons weren’t just ridden for fun. People like these police officers used them to do their jobs.
People called the motorcycles the company made either “Harley-Davidsons” or just “Harleys.” “Hog” and “bike” were also nicknames for the motorcycles.

H.O.G.

Hogs aren’t just pigs. People began calling Harley-Davidson motorcycles “hogs” in the 1920s. A team of boys that raced the motorcycles had a pig as a mascot. Every time they won the race, they would drive around with a pig on one of their motorcycles to celebrate their victory.

In 1983, a group of people created the Harley Owners Group (H.O.G.) to promote the biker lifestyle and culture. Group members gather to go on motorcycle rides together. Today, there are over 1,400 official H.O.G. chapters around the world!

Riding a Harley is more than a hobby for some people; it is a lifestyle.

Here are two pictures of Harley riders and their bikes. The top one is from 1908. The bottom image is from 2005.

Notice how the bikes and the Harley owners clothing have changed!

Arthur met Ole Evinrude while living in Cambridge. They enjoyed going fishing, just as Arthur and Bill did. Ole and Arthur’s boat did not have a motor, and the boys’ arms would get tired from rowing. So Ole invented a motor for a boat in 1907 to help make water travel easier. The outboard motor was an innovation that became a solution to a problem. Similarly, Bill and Arthur would improve the engine on their motorcycle to help make land travel easier.

Arthur and his family moved back to Milwaukee in 1900. Living in the same city again, Arthur and Bill saw each other more often and began working at making a motorcycle.

Bill drew his first sketch of a motorcycle engine in 1901. Arthur and Bill worked at it for long hours in Arthur’s parents’ basement, but they needed help. They asked their friend Ole for advice. He told them how to build a better engine. Arthur’s older brother, Walter, began helping them too.
The team finally made their first motorcycle in 1903. This first machine was not very reliable. It did not have a lot of horsepower or go very fast. Arthur, Bill, and Walter wanted to make it better.

So Bill went to college at the University of Wisconsin-Madison to become an engineer. He learned as much as he could about gas engines so that he could improve the motorcycle. Arthur and Walter stayed in Milwaukee. They worked on the motorcycle in a wooden shed in their parent’s backyard.

The men made and sold about seven motorcycles in 1905. They wanted to make even more motorcycles, but they needed more space to build them. The team bought a new factory in Milwaukee in 1906. That year, they built 50 machines!

Bill graduated from college in 1907. That same year, they made Harley-Davidson an official company. Walter became the company president because he was a good businessman. Bill was the company’s chief engineer, and Arthur was the top salesman. Arthur and Walter’s brother, William, began working at the company in 1907. He managed the company’s staff.

The four men worked long hours trying to make and sell as many motorcycles as they could. Walter and several other riders often rode Harley-Davidson machines in races to show people how well built the motorcycles were. This worked, and in 1914, over 20,000 motorcycles were sold. The machines were very popular!