



Construction

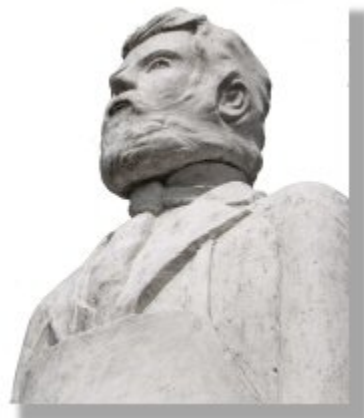
From Malls to Memorials

Street Pavement Pioneers

George W. Bartholomew, of the Buckeye Cement Company, and his contractor William T. G. Snyder, laid the first concrete street in America along Main Street in Bellefontaine in 1891. Their design used results of scientific research on concrete, cement, foundations, and drainage design that were intended to keep the pavement from cracking. Other pavement builders adopted their approach for streets and roads build around the country.



Bartholomew, an engineer, first proposed the idea of concrete pavement to Bellefontaine city officials in 1889. That was 19 years before Ford's Model T, the first mass-produced automobile, began zipping down America's streets. Streets in those days were a mess. Some had crude paving made from logs, wooden planks, or stone. Most, however, were just dirt. Dirt roads served the public well in winter, when everything was frozen solid. In wet weather, however, roads were quagmires of mud, often ankle deep. It splattered pedestrians and trapped horses and horse-drawn wagons. During dry summer weather, traffic kicked up clouds of dust that coated people and buildings.



Bartholomew thought that concrete paving could clean up the mess, and speed the flow of traffic in all kinds of weather.

Laying large slabs of concrete, however, required solving a number of problems. Concrete slabs need a firm foundation, for instance, to prevent cracking. It must be built in a way that allows water to drain without washing away the foundation material.

After experimenting with different construction methods, Bartholomew was ready to build pavement that would last. The first 8-foot-wide strip of concrete went down on Main Street along the side of Bellefontaine's Courthouse Square. In 1893 and 1894, city officials paved Court Avenue, Columbus Avenue, Opera Street, and more of Main Street. Some of the original pavement still remains. Bellefontaine has converted the area into a pedestrian mall with a monument to Bartholomew.



Did You Know?

- The first concrete highway in the United States was a 24-mile long, nine-foot-wide, five-inch-thick strip of concrete pavement built near Pine Bluff, AK,, in 1913.
- President Woodrow Wilson in 1916 signed the first Federal Aid Highway Act, which allowed the federal government to help states pay the costs of road building.

- In 1919, Oregon became the first state to put a fuel tax on gasoline to pay for road construction.
- Federal and state excise taxes on each gallon of gasoline and diesel fuel still build and maintain American's roads. In 2004, the Federal gasoline tax was 18.3 cents per gallon. State taxes added up to 30 cents a gallon more.
- The Pennsylvania Turnpike, built in the 1930s, was the first major intercity turnpike, or tollroad, completed in the U.S.
- According to the National Scenic Byways Program, Ohio's historic National Road paved the way west through the newly formed states of Ohio, Indiana, and Illinois and provided a direct connection to the mercantile and political centers of the east coast that helped to secure the influence and viability of these new settlements. As much as the road's boom times during the early- and mid-nineteenth century signified its importance to national commerce and expansion, its decline during the late-nineteenth and early-twentieth centuries reveal the meteoric rise of the railroad as the primary means of transport and trade across the nation. Likewise, the renaissance of the National Road in the early twentieth century reflects the growing popularity of the automobile.

Find Out More...

- [Pennsylvania Turnpike History](http://www.pahighways.com/toll/PATurnpike.html)
(<http://www.pahighways.com/toll/PATurnpike.html>)
- [Why Concrete Pavement?](http://www.ne.pavement.com/why.html)
(<http://www.ne.pavement.com/why.html>)