

## Tom Marshall's Weekly News, November 3, 2014

**Charles B. Bohn (1880–1953) and Adolph L. Nelson (circa 1885–?):** Charles Bohn was a leader in Detroit's automobile industry for nearly 40 years starting in World War I and lasting until his death. His Bohn Aluminum and Brass Company made many components for early automobiles. Adolph Nelson was his chief inventor and held many patents, most of them assigned to Bohn's company.

Perhaps the greatest achievement of their endeavors was the manufacture of lightweight pistons for the internal combustion engines of the time. They reinforced aluminum pistons with Invar struts, incorporated into the casting. Invar is a low-expansion steel, consisting of 64% iron and 36% nickel. These were known in the industry as Nelson-Bohnalite pistons and were most popular during the 1930s. They were supposed to resist expansion more than cast iron and therefore allow an early motor to run hot without tending to seize up.

The Bohn company's main office and foundry was on East Grand Boulevard in Detroit, next to the sprawling factory of the Packard Motor Car Company. Packard found a number of items manufactured by Bohn to be useful in its high-end cars. One such major purchase did not work out well, however. Packard decided to use Nelson-Bohnalite pistons in its senior 1938 models. My father had a 1938 Super-Eight Club Sedan that came so equipped. As his car, and apparently all others, approached 10,000 miles, the motor lost compression and used oil. The pistons did not expand (which was as advertised), but they did contract when the engine cooled down. Packard had a "recall" and replaced the pistons in all '38 Super Eights and Twelves free of charge.

Adolph Nelson was a serious trapshooter, he attended most of the large tournaments in the east, and he was a frequent visitor to Yorklyn. It was not unusual for him to shoot at nearly 10,000 registered targets in a year (my father and I usually made it to about 3,000, and we shot a lot). Nelson was a shy man who kept to himself around a shoot, and although almost everyone knew who he was, few counted him as a close friend. He was a good Class B shooter, averaging about 93% but seldom had a winning score.

In 1937, with Bohn's backing, Adolph Nelson attempted to stage a major trapshooting tournament in Detroit, and money was no object in building new shooting grounds, offering generous cash money and prizes and heavily advertising the five-day event. It was scheduled for the last week in July, a week ahead of the annual Yorklyn tournament. Not being able to match the generous prizes so lavishly advertised, we feared a drop in attendance would be likely at Yorklyn. As it turned out, the new venture occurred on a very rainy week, those who did attend got stuck in the mud, and our annual tournament at Yorklyn seemed unaffected. The Detroit tournament was never tried again.

Bohn Aluminum and Brass Company bought REO in 1954, just after Charles Bohn's death. In 1957, REO (and Bohn) was absorbed by the White Motor Company. With no hard feelings, Adolph Nelson attended the Yorklyn trapshooting tournament several times after 1937. I'm not sure how much he was able to shoot after World War II.