The ALCO Story

Distinctive, Durable, Doomed

. . . by Howard L. Applegate

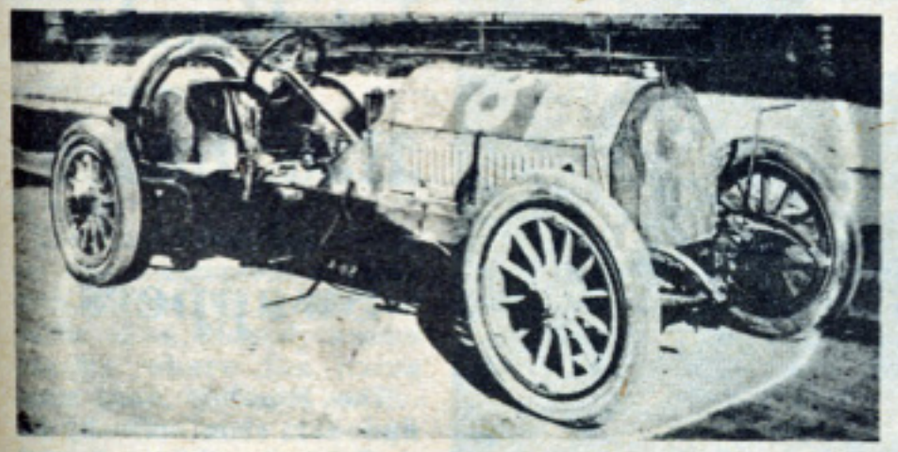
In the spring of 1905 the American Locomotive Company, headquartered at Schenectady, N.Y. decided to plunge into the burgeoning horseless carriage industry. American Locomotive, though only four years old, had roots deep in the transportation industry of the country stretching back to 1835, with American being the company name as the result of a merger between Brooks, Schenectady, Dickson, Pittsburgh, Cooke, and Rhode Island Locomotive Works in 1901.

Their decision to enter auto manufacturing was part of a national pattern of business retooling at the time, similar to the transition at Pierce from bicycles to autos or Studebaker from carriages and wagons to autos.

American Locomotive's (Alco) move was not spur-of-the-moment. Evidence indicates extensive research took place before the announcement and, rather than first American industrial buildings especially planned for automaking.

General Manager of the new firm was Arthur Pithim, son of Alco President Albert J. Pithim. Overall policy, however, was controlled by Schenectady-based officials despite their lack of experience in auto manufacture.

The Berliet, as Alco built it, was far from being an assembled car. Meticulous care in construction was the byword with frames cut to size and joined, while camshafts, crankshafts, and transmission gears were individually machined on the premises from steel billets. Alco imported raw materials and Berliet parts from France for testing purposes with some French components going into early models. However, when quality tests showed that American parts were

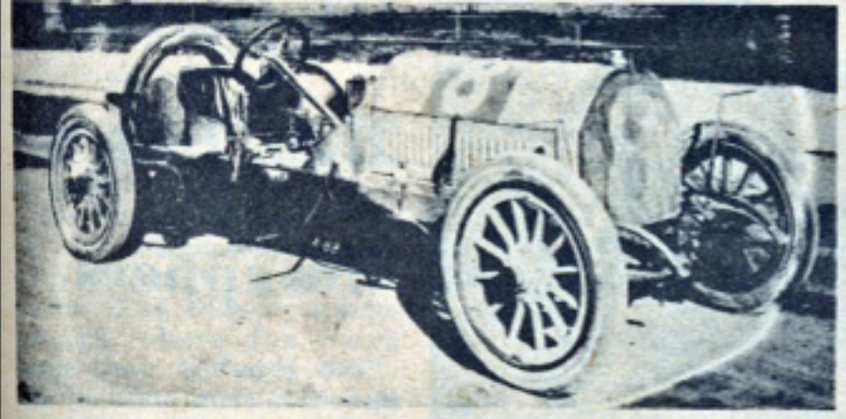


Harry Grant's Vanderbilt-winning Alco. Car was a double winner, capturing the cup in both 1909 and 1910.

Three four-cylinder cars were displayed at the show: a 40-horsepower highly-polished chassis, a 24 Horsepower landaulet with body by Kellner, and a 24 horsepower open tourer. They all shared chain drive as a common feature. Success came early to Alco in the fine car field of 1906 as they ended the model year with 200 units sold.

An astute visitor to the American Berliet exhibit at the 1906 New York show would be struck by the car's resemblance to the Mercedes — low slung, yet with sufficient clearance for safe driving on America's less-than-ideal roads of the time. If our visitor listened to the Alco salesman he would learn that ignition was supplied by a Simms-Bosch low tension magneto system of the make-and-break variety, the driving gears were enclosed in an aluminum casing, that the car had four forward speeds, the flywheel had blade-shaped spokes obviating the use of a fan, the chassis was pressed nickel steel, and all shafts and gears were made of chrome nickel steel. The engine had cylinders cast in pairs with integral heads and water jackets and the nickel-steel valves operated mechanically. In all, a quality car throughout.

1907 American Berliets were nearly identical to 1906 models in all respects. Confusing nomenclature began to creep in as the company referred to their products as



Harry Grant's Vanderbilt-winning Alco. Car was a double winner, capturing the cup in both 1909 and 1910.

start their automotive operations from ground zero, Alco entered into a three-year agreement with the French automotive firm of Berliet. Alco's management admired the advanced engineering of continental autos, but had reservations about European endurance and lasting power on rough American roads. They concluded that it was not feasible to consider any car except one built to shrug off the rugged mountain routes of the Rhone Valley in France.

Berliet fit Alco's bill almost to the letter. The car had good brakes and excellent hill-climbing ability, a successful name and fine production record, and, like many a fine wine, was a product of the Rhone district. Alco's contract made them the exclusive North American manufacturer of a quality French automobile — an excellent marketing position to be in at a time when France was considered the leader in motorcar innovation, design, and quality.

The automotive subsidiary, called the American Locomotive Automobile Company, was capitalized at $300,000 and was to devote itself specifically to the manufacture and marketing of motorcars. A new plant was built at Providence, Rhode Island adjacent to American Locomotives subsidiary, Rhode Island Locomotive Works, and was one of the

equal to or better than their overseas counterparts, Alco gradually substituted domestic components. One aspect of Alco cars must have driven stateside mechanics to distraction, though. In keeping with Berliet construction, all work was done according to the metric system; no doubt a wonderful feature if your Alco broke down while touring Europe, but a distinct drawback if troubles occurred in your home town.

Alco's first public showing took place at the January, 1906 New York Automobile Show and at this time the cars were called "American Berliet" rather than Alco.

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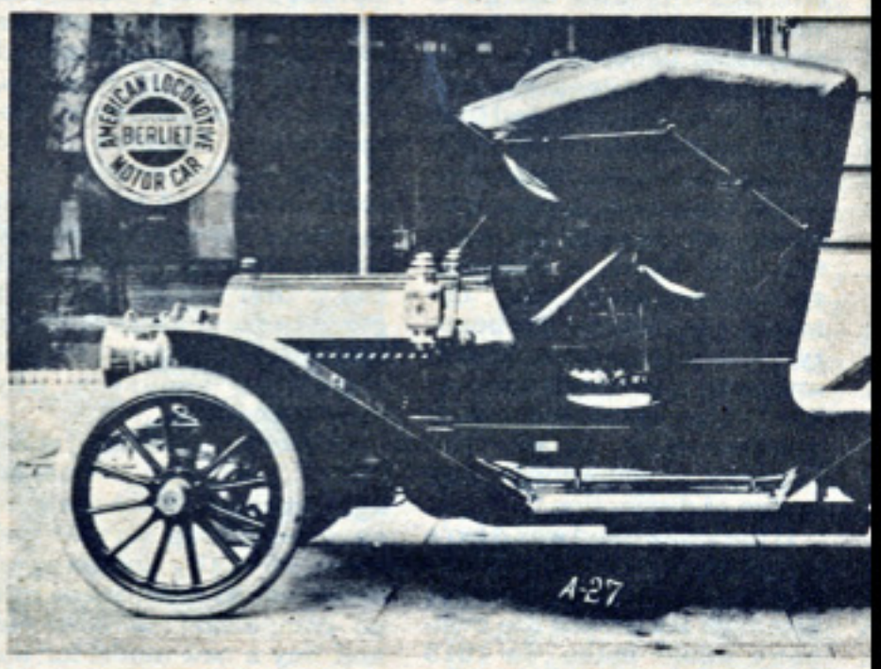
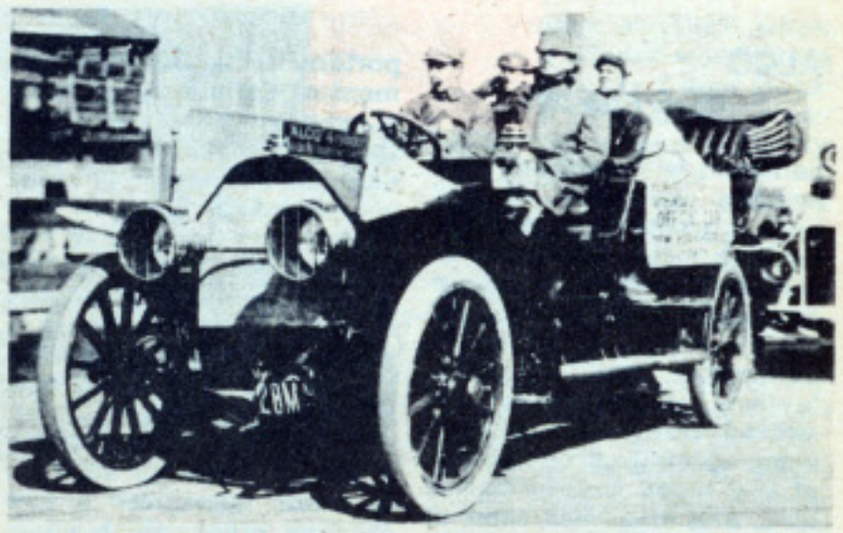
1907 American Berliets were nearly identical to 1906 models in all respects. Confusing nomenclature began to creep in as the company referred to their products as both American Berliets and American Locomotive Automobiles. Two new models were introduced: a small four-cylinder 24 h.p. "town car" with either a limousine or landaulet body style, and a four-cylinder 16 h.p. taxicab. These models used shaft drive in lieu of the chain drive featured on larger cars in the line. These smaller machines also used metal to metal hand brakes and a separate emergency brake.

American Locomotive claimed all gear casings and motors were tested separately at the factory and all completed cars run both inside and on the road before delivery. To back their



Gleaming new Alco tourabout was placed in front of Alco's New York better than national first prize winning car of today. Note accessory f



Handsome 1909 model 40 tourer served as official car for Good Roads tour sponsored by New York Herald and Atlanta Journal.

Photos courtesy the author

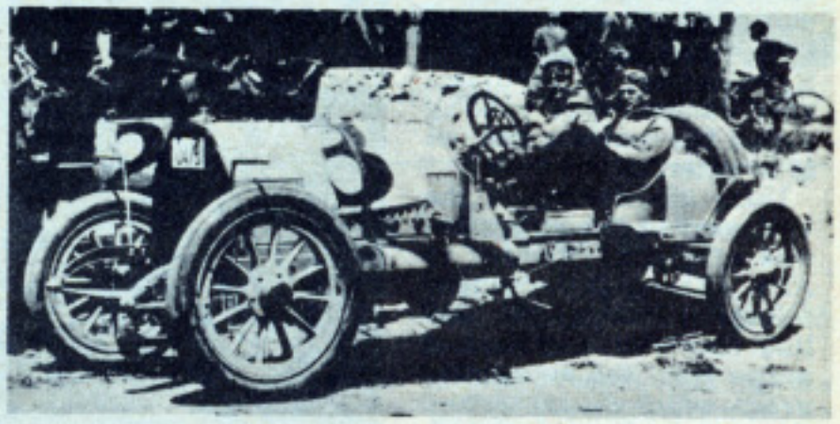
claims, they offered a then-unheard-of guarantee for one year on all parts. To top it off, the owner of an Alco was entitled to a free chassis overhaul after six months of ownership. In 1907, Alco equalled their 200 sales of 1906.

1908 was a benchmark year for Alco. Refinement rather than drastic change was still the guiding philosophy, but they expanded their line by introducing a 60-horsepower six which quickly became the flagship of the Alco fleet.

The car was called, simply

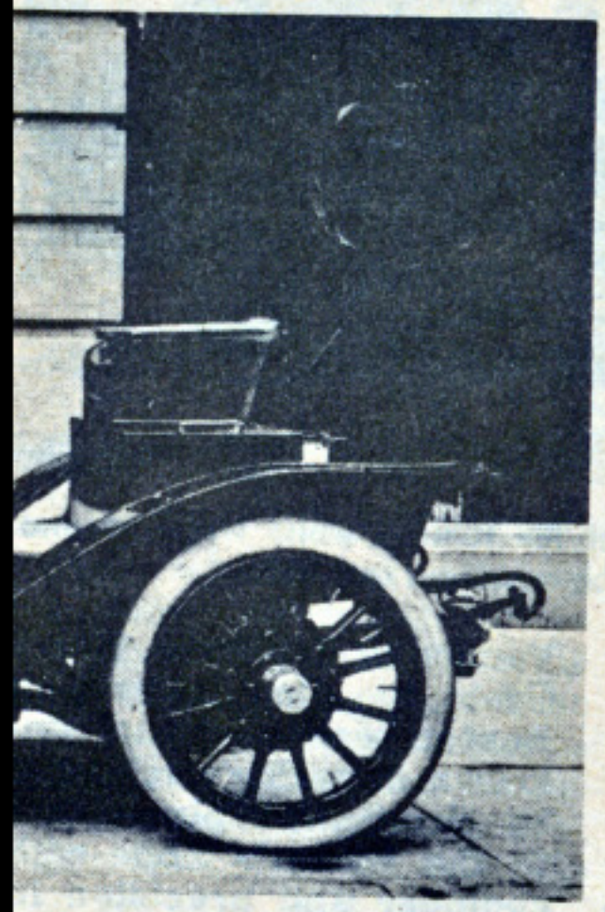
ing noise. Alco extended these lubrication and ignition features across their entire model lineup during 1908.

Further refinements in the 1908 cars sprang from Alco's depth of metallurgical experience in the locomotive business. Alco engines used vanadium alloy blocks and solid vanadium steel rods, crankshafts, and cams. For operational smoothness, a disc oil bath type clutch was used which utilized the flywheel hub as a drum. Gears were enclosed in a light alloy case and the gears themselves were also machined from



Another Alco racer, date and location unknown. Massachusetts dealer plate indicates it may be Harry Grant himself at the wheel since he was Alco's Boston agent.

enough, the model 60 and was an appealing combination of great power with compactness, lightness, and ease of control. The 60 was built on the same 126" wheelbase of the 40 but despite the two extra cylinder it weighed just 300 pounds more and the hood was just an inch longer. The six engine ran efficiently and smoothly at 90 m.p.h. and the four speed gearbox permitted startling acceleration for the period. Lubrication was force-fed with a 2-quart oil reservoir and a Bosch high-tension magneto was used to reduce working parts and their correspond-



salesroom. Finish is as good or
ront bumper.

vanadium steel. Even the springs, driveshaft, and torsion bars were made of various types of vanadium steel alloys.

The extensive use of this incredibly durable steel led to Alco being referred to as "the anti-fatigue car." The company claimed that no failures of crankshafts, connecting rods, camshafts, or differentials had ever been recorded and, in a flight of pardonable chest-thumping, went on to say that their standards of manufacturing excellence surpassed those of Berliet, pointing out frequent testing of products and parts; during which time imperfect components were discarded.

(Ed. note: Alco was probably making a legitimate claim. An ex-employee of the firm's grinding department once told me that he asked his foreman what to do with an imperfect crankshaft he had ground. The foreman told him to throw it out the window into the river beside the plant.)

And what did all this quality cost? The 1908 Six tourer was priced at $7500. with the limousine at $8500. The 40's were a bit less — $6500 for the tourer or runabout and $7500. for the limousine. The 24-horse cars were $6000.

By mid-1908 the three year

(ALCO, Next Page)

ALCO

(From Page 297)

contract with Berliet was nearing expiration. It had been a profitable agreement for both sides, but Alco profited by it far beyond dollars and cents. They had bought the experience of a quality automaker, had obtained a factory organization of skilled American workmen using specialized equipment of the most sophisticated kind, and employed some of the most advanced methods in the industry.

With this organization, proclaimed as "perfect" by *The Automobile*, Alco had a formidable amount of muscle in the luxury car field and found that the need for the French license was of less and less advantage. Without the license they could modify their products as desired, save on royalty payments, and market the car under their own name without so much as a nod to Berliet. Alco was in a great position, for the contract had been shrewdly written to allow use of any Berliet designs or features without payment after the contract had expired.

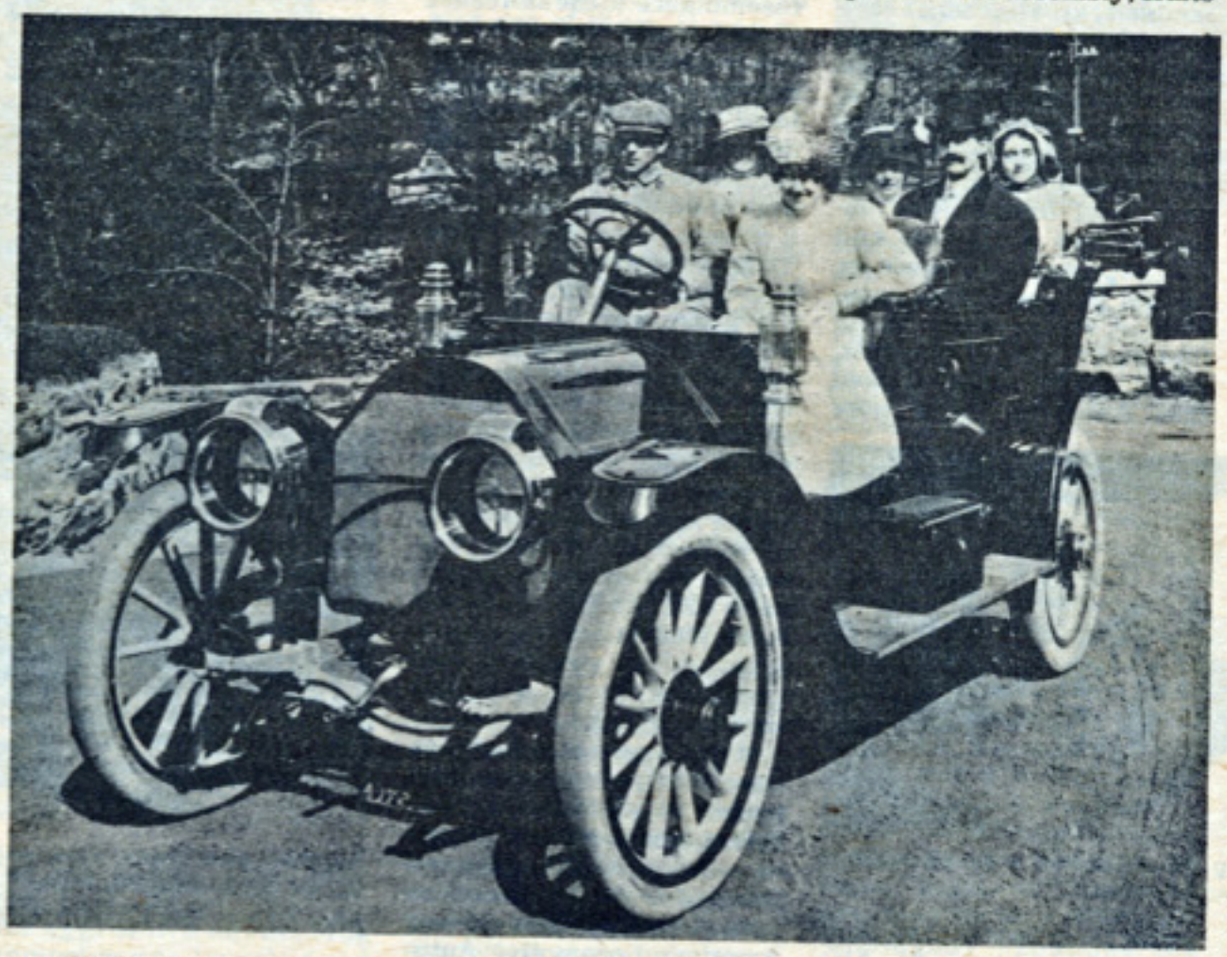
On June 27, 1908 the Schenectady management paved the way for non-renewal of the contract by merging the American Locomotive Automobile Company into the parent organization. By September 17, 1908 Manager James Joyce publicly stated the contract was not to be extended.

Upon introduction of the 1909 models, the car's name was officially changed to Alco. Although little changed from prior offerings, the 1909 line received hosannas of praise from the automotive press, which characterized the cars as home-designed. *The Automobile* noted the new models were "outdistancing the excellent reputation it (Alco) originally gained by its domestic duplication of a well-known foreign machine."

One new model was introportant being the abandonment of chain drive in favor of quieter, cleaner shaft drive throughout the line. Make and break ignition was discontinued in favor of the jump-spark system in the form of Bosch dual system of high-tension magneto and storage batteries firing a single set of spark plugs. Although the Alco could now be started on the spark lever, the company characteristically took things one step further and introduced a new starting crank which eliminated "back kick" and the attendant sprains, broken limbs, and not-so-muffled curses.

Thanks to elimination of royalty payments Alco was able to sell its 1910 machines for considerably less money than before. The Six-60 touring or runabout listed at $6000., while the four-cylinfore 200,000 spectators, Grant and his sleek number 8 Alco defeated such renowned cars and drivers as Billy Knipper on a Chalmers, Louis Chevrolet piloting a Buick, and Spencer Wishart on a Mercedes. Grant averaged 62.82 mph over the 278.08 mile couse, and brought his 6-cylinder car up from a starting position in the 11th spot through a steady progression to win the race nearly 5 minutes ahead of the second-place Fiat driven by Ed Parker.

The 1910 Vanderbilt was more of a nip-and-tuck battle for Grant and Alco, as he crossed the finish line just 25 seconds ahead of Joe Dawson's Marmon. Grant's average in the 1910 contest was up a bit to 65.18 mph and the cylinders had been punched out to 579.9 cubic inches, up from 565 c.i.d. in



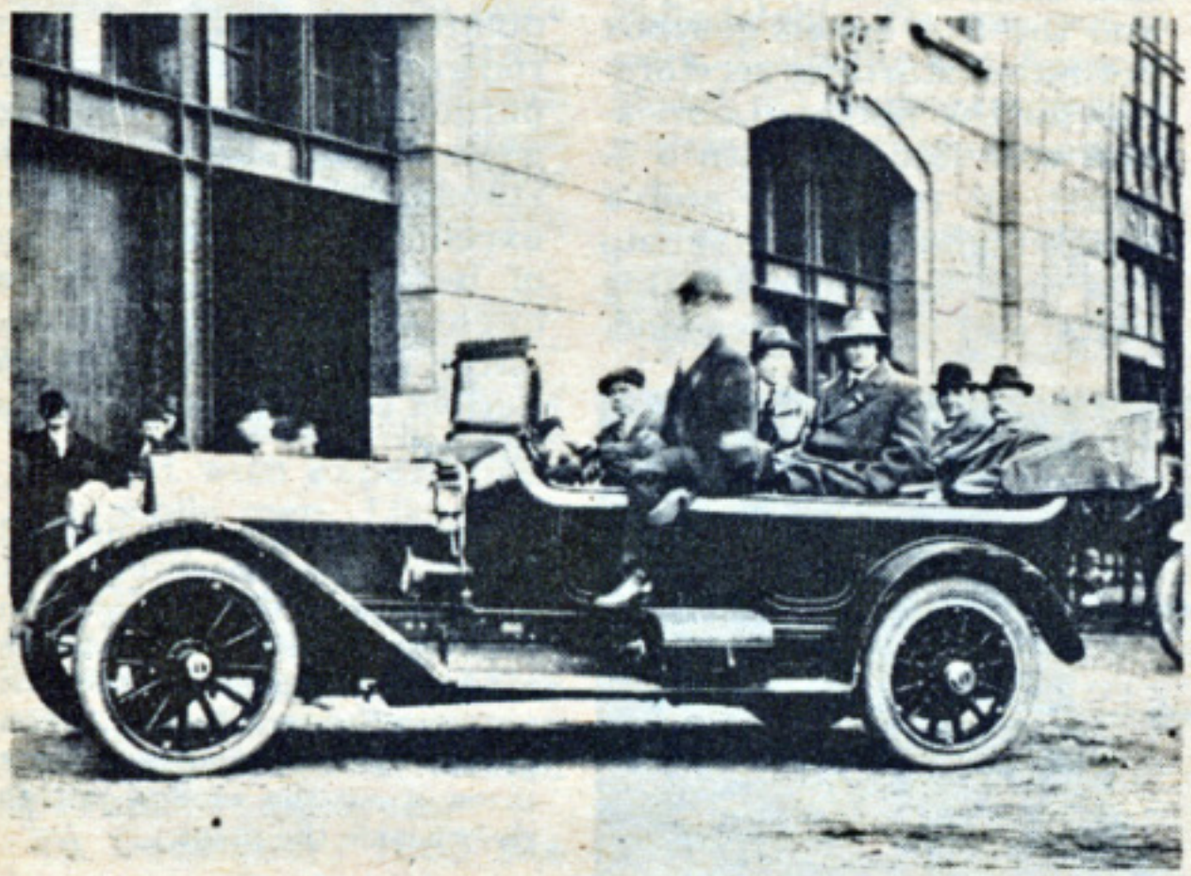
Alco 1909 Six-60 seven passenger touring. Fast, flexible, and very powerful. Made from the finest metals available.

why Alco should have enjoyed a long, successful product run. Each car was backed with the most complete and thorough corporate

The Alco plant in Providence, R.I. Thi of UniRoyal, was one of the first fo automaking.

quality control system and testing laboratories. No Alco had ever been known to wear out. Records of cars lasting over 200,000 miles were not unusual. The attention to detail, finest quality metals, precision of assembly, crafts-

One new model was introduced in 1909 — the Tourabout — a sporty affair with a sharply raked steering post and a low-slung frame and seat. It also boasted an outside seat for the chauffeur and a specially designed top



One of the last of the Alcos with the famous white stripe around the body. Passenger appears to be making a fast exit.

which, when erected, hung low over the passenger compartment to shield the occupant's eyes from the sun (or rain).

1910 saw the first truly "Americanized" Alco emerge. These cars embodied many variations from the Berliet design, the most im-

der touring, toy tonneau, or runabout was dropped to $4750.

1909 and 1910 were Alco's glory years in racing as they scored impressive victories at America's premier contest in those days — the Vanderbilt Cup races. Harry Grant, the Alco dealer from Boston was a virtual unknown in racing circles but he chauffeured his mounts to the winner's circle with coolness and precision in both the 1909 and 1910 contests.

On October 30, 1909, be-

1909. Management claimed Grant won because of the car's staying power and introduced the slogan "What lasts best is best."

Few mechanical changes were made in the 1911 and 1912 models, a period characterized by the company as the "years of refinement." A new, more efficient carburetor became standard. The power of the four cylinder engine was increased while the base price of this series dropped by $500. For 1913 Alco converted to electric lighting and added a searchlight, a courtesy lamp concealed beneath the curbside door, disappearing windows in closed cars, and that most prominent of all Alco trademarks — the distinctive white band around the upper body and cowling of each car. The band, a company spokesman said, was "the motor car insignia for beauty, culture, good taste, speed, and power. It stands for long life." The catalogue put it another way. It was the "symbol of superiority and badge of distinction."

If the white band was Alco's silent statement of automotive superiority, it was the last such statement the company would make. In 1913 Alco ceased production.

On the surface, there are several compelling reasons

manship, and prestige of the car was indisputable from the beginning.

So why did the magnificent Alco fail? There are eight substantial contributing factors: 1. Even though high-priced, Alco lost money on each sale. In its quest for quality and reliability the company incurred heavy overhead charges for testing and quality control, while paying premium prices for the finest quality materials. 2. Alco had a very small dealer network. 3. Alco's market was very small and highly competitive at the time. They were head to head with the likes of Peerless, Packard, Pierce-Arrow, Locomobile, Simplex, and Thomas for the prestige market's dollar, not to mention the many top-quality foreign makes available then. Rumor has it that unsold cars were given to purchasers of steam locomotive equipment — an attractive bonus in any man's language.

4. Alco's legendary reliability actually worked against them. Since the cars gave such long service and were virtually unchanged from year to year, there was no compulsion to rush out and buy a new model for the family stable. 5. Especially after 1910, the Alco's size was actually too big for most

purchasers to live with. 6. Despite the advanced metallurgy gained from Alco's association with the parent company, most luxury buy-

his building now houses a division
factories specifically designed for

ers felt more comfortable with cars built by firms who were exclusively automakers. 7. Alco advertising was almost non-existent and little advertising was placed in "quality" publications. 8. Alco's truck and taxicab business was also unprofitable for the same general reasons.

The story of Alco is one of a company which attempted and succeeded in building a reliable, durable, top-quality car for the prestige motoring market. The fact that they eventually failed does not diminish the product itself, nor the uncompromising men who built it.