

A CATALOG OF Minnesota-Made Cars and Trucks

Alan Ominsky

MINNESOTA has never rivaled Detroit, Michigan, in automobile production, but the state has had its moments. Around the turn of the century, long before autos were being castigated as a national calamity, the idea of a self-propelled road vehicle was one which burned in the brains of tinkerers and blacksmiths in Owatonna, Crookston, and Magnolia as well as in Detroit, Cleveland, and Chicago.

Starting from scratch, or purchasing an engine designed for stationary service, local inventors worked long hours in their basements and barns to develop their own conceptions of what came to be known as the horseless carriage, moto-buggy, motor buggy, or – finally — automobile or car. Understandably, safety and pollution were trivial matters compared with the task of creating a vehicle which not only ran but ran reliably — whether powered by steam, electricity, or gasoline, all of which seemed equally practical at the turn of the century.

Before 1910, at least fifteen one-of-a-kind vehicles had been built in Minnesota. Although assembly-line

Footnotes are at the end of the article.

Mr. Ominsky, production supervisor for the Minnesota Historical Society's publications department, has a longstanding interest in automobiles, old and new. He has owned and driven a variety of sports cars and not infrequently repairs his own or (when pressed) his colleagues' automobiles. production was still in the future, farseeing Minnesotans then began to consider production of cars and trucks on a duplicate or series basis. Serious and quite successful attempts at manufacturing cars began in Minnesota around 1910, and clearly the automobile was being elevated from toy status to that of a practical mode of transportation. By the mid-1920s more than forty-five makes of autos and trucks had been built in the state. The manufacturers of some thirty of these had series production in mind.¹

Despite this not insignificant promise, manufacture of cars and trucks by Minnesota-based firms ceased quite abruptly soon after the mid-1920s as the competition from mass-producing automotive giants in other states became insurmountable. In the earliest days of the car, however, Minnesota had as good a chance as any of several states of becoming a center of auto production.

The first experiment with a self-propelled road vehicle in Minnesota took place in 1860 only two years after the territory became a state. For some time Joseph R. Brown, Minnesota River Valley trader and entrepreneur, had been thinking about a mode of transportation that might replace the plodding and expensive oxen which carried goods across the state to the West. The prairie, to Brown's reckoning, was "level as a barn floor." Probably taking inspiration from the railroad engines of his time, Brown conceived of a massive steam-driven tractor to facilitate his prairie commerce. In 1859 he contracted a boiler manufacturer in New York to help bring his dream to life. After some delays, the knocked-down parts arrived in Minnesota in the late spring of 1860. With the appearance of an engineer some days later, the tractor was erected and successfully run up and down the main street of Henderson, Brown's home town, on July 4. On October 6, however, on its maiden grassland trek from Henderson to Fort Ridgely, the machine became inextricably mired in soft ground and had to be abandoned. Brown continued his experiments with the "prairie motor" for a decade until his death in 1870, but to no avail.²

Perhaps the wiser for Brown's failure, a number of Americans in the 1860s and 1870s built light steam vehicles, using wagons, carts, and, occasionally, bicycles as the basic framework. In 1880, Herman Saroni of St. Paul followed suit and mounted a steam engine in a wagon which he drove on Cedar Street.³ This steam wagon was probably the first self-propelled road vehicle constructed in Minnesota.

Saroni's experiment with steam power was not a harbinger of the future, however. Four years earlier, *Scientific American* had announced the invention of two gasoline engines — the Brayton two-cycle, manufactured in Philadelphia, and the Otto four-cycle, developed in Germany. Then, between 1889 and 1891, the gasoline engine was effectively applied to road vehicles in the United States by three individuals, Henry Nadig, Gottfried Schloemer, and Charles Black.⁴ Thereafter, gasoline engines slowly began to eclipse steam and electric engines in popularity for self-propelled vehicles.

In 1893 middle America's acceptance of the motor buggy was hastened by several exhibits at the immensely popular and influential World's Columbian Exposition in Chicago: At least seven gasoline engines were displayed in addition to a "waggonette," a gasoline-engined road vehicle invented by a German, Gottlieb Daimler. Among the visitors to the exhibits were two Franklin, Minnesota, men—George Forsyth, a flour miller, and Olaf Nelson, a blacksmith. Apparently inspired by what they saw, they went on to Buffalo, New York, and purchased two gasoline engines. Then they returned to Minnesota and constructed two cars sometime between 1894 and 1897.⁵

Responsive to the popular interest generated by the motor exhibitions, the *Chicago Times-Herald* sponsored the United States' first auto race in 1895. Among the scheduled entries was the "Ames machine" prepared by a Mr. Nichols of Owatonna. The crude machine, pictured in the December, 1895, issue of *Horseless Age*, consisted of a buggy box and seat suspended between two bicycle frames. A boiler provided steam to the pistons on each frame. Because it was not ready



1895 AMES

in time, the machine did not run in the race, and Minnesota automobile producers missed this chance for national exposure. (A Mueller-Benz car finished first in the highly publicized event, and a Duryea brothers vehicle placed second.)

The next spring (1896), an electric car which had started but not finished the *Times-Herald* race was demonstrated at a bicycle show in Minneapolis and drew the attention of many Minnesotaus. The car, built by William Morrison in Des Moines, Iowa, and owned by Harold Sturgis (or Sturgess or Sturges) of Chicago, ran at the Minneapolis Exposition Building and on the city streets. Commenting on this attraction, a *Minneapolis Journal* reporter sagely predicted: "Everywhere that this machine goes it sows the seed from which an immense harvest will be reaped later on."⁶

Without the publicity attending the appearance of Sturgis and his electric car, gasoline engine devotees quietly continued construction and refinement of their preferred mode of locomotion. In October, 1895, the earliest gasoline car of record built in the state was completed and demonstrated on the city streets by the Owatoma Manufacturing Company.⁷ By 1897 several more gasoline-powered cars had been built in Minnesota: Forsyth and Nelson had launched their similar machines in Franklin; Lincoln H. and Frank E. Fey had run their tricycle car in Northfield in the spring of 1897; and Oscar Bergstrom of Minneapolis, who worked "for months" to complete the vehicle he conceived in 1895, had probably road-tested his car.

ONE-OF-A-KIND auto production continued in the country for some years, but when the city of New York held its first automobile show at the turn of the century, a majority of the nineteen cars on display – manufactured by factories turning out the Oldsmobile, Winton, Haynes, Packard, and others — were series-produced. Concurrently, Olaus Lende of Granite Falls launched what was probably the first attempt to produce more than an occasional auto in Minnesota. In 1902 he completed a gasoline-engined car which apparently was successful, for he continued to produce cars at least until 1909. He manufactured a total of eighteen vehicles.⁸

Many prairie capitalists, however, were reluctant to plunge into auto production until sales demonstrated that the local demand was strong and ongoing. For some years the car market was moderate at best because of the poor quality of rural roads and the lessthan-reliable performance of existing autos. In 1907, for instance, a handbook entitled Earth Roads, published by the Wisconsin Geological and Natural History Society, noted that about 84 per cent of Wisconsin roads were "as yet unimproved with stone or gravel." Continuing, it complained that "in many sections the roads are too narrow, 'thank you marms' abound where unnecessary . . . the roads are rough and uneven in dry weather and nearly impassable in wet."9 Presumably, Minnesota roads of the same period were little or no better.

In 1913 Farm Implements magazine noted the com-

GRANITE FALLS shop in which Lende cars were built.



pletion of the "first mile of a concrete roadway in Hennepin county." The road was a section of "Superior Boulevard, a public highway leading from Minneapolis to Lake Minnetonka" (now Highway 12). As late as 1925 a map of Minnesota's highway system revealed that the majority of roads still had a gravel surface and that the few paved roads were concentrated in the Twin Cities area and on the Iron Range. Auto drivers and passengers had to put up with bumpy, dusty roads in most areas. Despite such obstacles, auto registrations in Minnesota climbed from 6,282 in 1909 to 42,664 in 1913.¹⁰

By 1910 the press in Minnesota was devoting considerable space to all phases of automobiling. On the "automobiles" page of the Minneapolis Journal the suggestion was boldly voiced "to make automobile or motorcycle dealer and chauffeur licenses revocable." (At this time licenses were still available to anyone who paid the small license fee.) Auto refinements were also noted for interested readers. The Reo Motor Car Company aunounced, for example, the adoption of the left-hand driving position for its new models because of the "rapidly increasing popular demand among experienced owners."¹¹

By the end of the century's first decade, the automobile had already become an important status symbol. Eager promoters glamorized even the most mundane products by associating them with automobiles. A fullpage advertisement for the Myers water pump, for example, showed a young woman at the handle of one of the pumps proudly assisting a properly attired motorist while he added water to his auto radiator before an admiring crowd.¹²

Automobile manufacturers also had begun competing for public attention in much the same manner as today's producers. Hence, the press of 1910 noted the "latest hill climbing feat of the Velie," in which a demonstration driver, with about ten people in and on the car, climbed the sand hill piled up by the contractors who were building the procathedral (Basilica of St. Mary) at Hennepin Avenue and Sixteenth Street in Minneapolis.¹³

However innovative their promotions, Minnesota producers nevertheless were being overshadowed by their competitors in other states. In 1910 Michigan already led the nation in auto production with 102,000 cars to its credit annually — more than four times the number manufactured in Ohio, its nearest contender.¹⁴

Although by 1912 auto sales were soaring and a 10,000-mile guarantee on its Rambler was announced by the Thomas B. Jeffery Company of Kenosha, Wisconsin, automobiles had yet to achieve a level of reliability even close to what we know today. Automobilers often needed ingenuity to return home without the





A PASSENGER-LADEN Velie successfully climbs a sand hill piled up by contractors who were building the Basilica of St. Mary in Minneapolis.

ADVERTISERS of an earlier day used automobiles to add glamor to more mundane products.

aid of a horse. One intrepid driver, lacking a repair kit with which to fix a blowout, somehow made do with the cover of a twenty-five-cent cracker tin. Motorists considered chewing gum a necessity, both to relieve dryness caused by wind in the mouth and to patch leaks in the gas line. After Cadillac introduced the electric starter in 1912, some manufacturers prematurely omitted the manual starting crank, but clever owners learned to jack up one rear wheel, put the car in gear, and give the wheel a spin when confronted with a balky starter.¹⁵

Despite the vicissitudes of early motoring, entrepreneurs began by 1910 to perceive the economic value of the auto which heretofore had been regarded primarily as an expensive toy. In 1912 an anonymous source estimated that 50,000 delivery vehicles were in use in the United States. As early as 1908, farm implement dealers began selling autos in Minnesota. One magazine reported that although "the opinions of prominent retail implement dealers are at variance on the question of handling automobiles . the same has been true in the case of gasoline engines and other specialties which are now recognized as a legitimate part of the retail implement dealers' business." Though automobile distribution gradually passed into the hands of automobile dealers, for a decade or more many rural Minnesotans bought their plows and autos in the same store.16

For many years the Twin Cities served as the commercial distribution center for the vast, sparsely settled area extending from Minneapolis and St. Paul all the way to the West Coast. Local capitalists were well aware of the growing demand for autos, especially in rural areas, and for a time Minnesota-made cars were produced for many customers scattered over the region. In Minnesota alone, auto registration in cities with a population of more than 20,000 climbed 177 per cent from 1909 to 1912, while the increase for towns under 1,000 in the same period was a whopping 786 per cent.¹⁷

IN THE CATALOG BELOW are brief descriptions of cars and trucks designed and built throughout the years by Minnesotaus. Some vehicles were successful fulfillments of Minnesotans' dreams, while others were failures. They took a wide variety of forms and, in the aggregate, represented considerable effort to put Minnesota on the car-manufacturing map. The author has tried to include every Minnesota-made vehicle that fell into either of two categories: one-of-a-kind cars built before 1910 and cars and trucks intended for large-scale production. (Evidence from the contemporary press suggests that all the post-1910 cars on the list were intended for series production and, therefore, built for financial profit.) The date-entries give, as nearly as can be determined, the years in which the

vehicles were operating or available to buyers. Scale of production is indicated where information is available. With two exceptions - Ford and Overland - little effort has been made to identify those cars which were merely assembled in Minnesota from components

produced elsewhere. Special purpose types such as racing cars and off-the-road vehicles are omitted from the list,18 as are firms which merely built bodies on existing chassis. The author acknowledges that this list probably is incomplete, and he invites corrections.

ACME or M.B. 22

1908-1911 Columbia Heights Introduced as the Acme Roadster, this vehicle soon was advertised as the M.B. 22 (for "motor buggy"). Later, it became available in touring and delivery bodies as well as the roadster form. In construction, the M.B. 22 was a light, high-wheeled machine with a two-cylinder-opposed, water-cooled engine rated at sixteen horsepower in 1908 and at twenty-two horsepower in 1909. Its solid rubber tires eliminated the possibility of flats and blowouts.19



M.B. 22

The company's output can only be The company's output can only be speculated upon. One 1909 source mentioned that "fifty new machines are now in process of construction and will be finished and ready for delivery May 1 [1910]." The auto-mobile census of 1912 reported that four Acme autos and twenty-seven Motor. Bugging were registered in Motor Buggies were registered in Minnesota. The term "motor buggy," however, may have been used generically, 20

Late in 1910 the Motor Buggy Manufacturing Company, located at Thirty-eighth Avenue Northeast and University Avenue, advertised a new model, the forty-five-horsepower Renville with a four-cylinder engine.21 This car had a more conventional design than the buggy, with pneumatic tires on smaller wheels. It sold for \$1,500. The choice of the name

THE CATALOG

Renville is curious inasmuch as the Hoffman brothers from Renville, Minnesota, were producing trucks at the same address two years after the demise of the Motor Buggy Manufacturing Company.

RENVILLE



AMES

1895

Owatonna

189?

A Mr. Nichols of Owatonna built this light steam car for A. C. Ames of Chicago. Its body consisted of a buggy box mounted between two bicycle frames. Steam from a boiler in the box was delivered to 1.75-inch-by-13inch pistons mounted on the lower bar of each bicycle frame. The piston rod drove the pedal crank of the bicycle.22

The machine was entered in the Chicago Times-Herald race of 1895, but unforseen difficulties prevented it from running. A reporter from the Crow Bar interviewed designer Nichols, who said that the "machine (he was confident) was equal to anything on the ground, but they found it slow work getting it ready for busi-ness, and therefore had concluded to drop out of the contest."²³ The builders may have had trouble equalizing the force on the rear drive wheels, making it difficult to keep the machine from going in circles.

BENOIT

1902

Benson Swift County's first auto was con-

structed by J. B. A. Benoit. Benoit operated a general repair shop where, over the years, he also constructed about twenty stationary gasoline en-gines. The high light of Benson's Fourth of July celebration in 1902 was a race between the vehicles of Benoit and A. C. Roseter of Appleton. Benoit won by a large margin.24

BENOIT



BERGSTROM

Minneapolis

Oscar Bergstrom's "chugger" was one of the earliest gasoline-powered automobiles in the state. Bergstrom told reporters interviewing him about his creation: "I got my first inspiration to

BERGSTROM CHUGGER



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build automobiles after witnessing the *Chicago Times-Herald* race Thanksgiving day, 1895." After that event he worked "for months" (the completion date is uncertain) to produce what he "thought to be a wonderful machine." However, "after I made a couple of test runs," he recalled, "it became necessary for me to push the car away from home several blocks as my neighbors threatened to lynch me if I continued to make so much noise, and I was always careful to take a new direction, seeking new victims each time."²⁵

BJELLA

1906

McIntosh

A flat, two-cylinder-opposed engine drove this home-built high-wheeler. The car's third and present owner, Henry Minnett of Chickasha, Oklahoma, has restored the car. It was built in the shops of the McIntosh Iron and Wood Works during the winter of 1905 and the spring of 1906 by Ole A. Bjella. The firm manufactured a line of wooden harrows and horse-drawn sleighs.²⁶

BJELLA



BRASIE PACKET

1913-1917

Minneapolis

In 1913 Frank R. Brasie began manufacturing vehicles at 2743–45 Lyndale Avenue South under the name Brasie Motor Truck Company. The firm's first product was the Twin City truck, priced at \$1,350, which had a capacity of "one to two tons." A reorganization announced on July 26, 1914, renamed the firm Brasie Motor Car Company, and the firm added the Packet, a light delivery vehicle, to the line. By varying the Packet's body style slightly, it also produced a "pleasure car" called the Messenger.



TWIN CITY TRUCK

This author found no mention of the Twin City truck after 1914.²⁷

With the 1914 reorganization, J. M. Michaelson joined the new firm as secretary and was placed in control of sales and advertising. Previously he had designed the Minneapolis twospeed motorcycle and been president of his own motorcycle manufacturing company.

Except for the Twin City, Brasie's vehicles were of narrow tread (under forty inches) and classed as cycle cars. The Packet was powered by a four-cycle engine with a friction transmission and belt drive. In an unusual arrangement, two jacks under the seat forced the rear axle backwards to tighten the drive belts.²⁸ Initially the Packet sold for \$400 complete, then in 1915 the price rose to \$450. In 1916, the Packet Motor Car Manufacturing Company, as it became known, priced the chassis only at \$325.

BRASIE PACKET



DAVENPORT

1902?

Minneapolis

A twelve-passenger steam stage was built by the Davenport Manufacturing Company managed by Birge W. Davenport. One source gives the year of manufacture as 1903, but the firm is listed at 417 First Avenue North only in the 1902 City Directory. The auto cost between \$1,000 and $$2,000.^{29}$

DISPATCH

1911–1923 Minneapolis

Little notice was taken of the Dispatch Motor Car Company by the local press throughout the firm's relatively long existence, and only one Dispatch car was reported in the yearly Minnesota vehicle registration list before 1917. Nevertheless, the national publication Motor Age regularly carried descriptions of various models of the car, and local lists of auto manufacturers always mentioned the Dispatch Company. The firm first appeared in the City Directory in 1910, its office being in the New York Life Building. The one registration of a Dispatch in Minnesota was in 1911. In January of the next year Automo-



DISPATCH

bile magazine included the Dispatch in its buyer's guide. Two models, E and G, were available in six body configurations, including a "rumble." Prices ranged from \$700 to \$1,000. In 1913 one-half-ton trucks, designated models L and N at \$850 and \$900, were added to the line.³⁰

The year 1914 was a significant one for the Dispatch Company. At that time it moved its factory to 1200 Fourteenth Avenue Southeast and dropped the original two-cycle motor for a four-cycle, twenty-two-horsepower engine of Wisconsin manufacture. The vehicles produced by this firm were unusual in that, until 1918, they all used chain drive.³¹

The Dispatch Motor Car Company was listed in the *City Directory* until 1923 at the southeast Minneapolis address.

DULUTH

1917

Duluth

In 1915 Automobile magazine reported that Hugh Miscampbell was building a two-and-half-ton truck at 304 South First Street. Minnesota auto registration showed two vehicles under that name existing in 1917. By 1922 Miscampbell had given up truck building and confined his operation to auto bodies, according to the state business directory, which has him located at 306 South First Avenue East.³²

1897-1905

FEY

Northfield

Lincoln H. Fey's asthma accounted for one of the earliest gas-engined horseless carriages in Minnesota. Fey's health problem was aggravated by exposure to horses, and, as a result, he began to search for a less irritating mode of locomotion. While frequenting the Fox and Ferris Machine Shop in Northfield (where he learned to work metal), an idea developed, and in 1896 — at the age of fifteen 33 he began constructing a vehicle. First he built a steam engine to power the contraption, but he soon became interested in gasoline engines and sold the steam engine for \$25 to finance another vehicle. The next year, with assistance, encouragement, and money from his brother Frank E. Fey, he completed his first car. In design it was a tricycle, with the engine driving a single rear wheel which eliminated the need for a differential. The auto's front wheels were steered, and its carburetor consisted of a rectangular tank through which air was drawn over a series of wicks dipped in gasoline.34

Shortly after completion, the machine was sold to Alfred J. Smith of New Prague for \$65. This transaction provided capital for the Fey brothers' next venture. A second one-cylinder car — with four wheels — was completed in 1898. It, too, was sold, but for a whopping \$170. The brothers built two more cars, the third with a large, single-cylinder engine and the fourth and last with a four-cylinder, air-cooled engine of their own design which was completed in 1904.³⁵

FORD

1912– Minneapolis and St. Paul Ford Motor Company's assembly operations in Minnesota began in the Great Northern Implement Building at 616 South Third Street in Minne-



DRAWING OF the Fey brothers' first car



FEY BROTHERS' fourth and last car



apolis. Between seven and ten Model Ts were assembled each day at this location. By 1915 Ford operated a new plant at 420 North Fifth Street (now occupied by Honeywell Inc.) and boasted a production capacity of 100 cars per day "when necessary." In the assembly department and throughout the building twenty-six electric motors, ranging from "one-half to 100 horsepower in size," were reportedly in use. Ford's output reached a peak of 23,000 vehicles at this plant in 1923. In May, 1925, assembly operations were moved to their present location at Ford Parkway and Mississippi River Boulevard in St. Paul. At this location production in 1965 had reached 132,000 units per year.30

FORSYTH

1896?

Franklin

After visiting the Chicago World's Columbian Exposition in 1893, flour miller George Forsyth and blacksmith Olaf Nelson continued on to Buffalo, New York, where they purchased gasoline engines for two cars they were planning to build. Subsequent to a

FORSYTH CAR remains



period of delay during which Forsyth courted and married his wife, the two men completed their machines sometime between 1894 and 1897. Nelson never drove his car because he thought it went too fast.³⁷

FORSYTH



GOPHER, see ROBINSON

HOFFMAN

1913-1914 Columbia Heights The Hoffman truck was built in the plant formerly occupied by Motor Buggy Manufacturing Company, at Thirty-eighth Avenue Northeast and University Avenue, by the Hoffman brothers of Renville. The business was formed in 1912, and its sole product was a three-ton model with an enclosed wood cab and a four-cylinder Wau-kesha engine. Equipped with hard rubber tires and Prest-O-Lite gas lights, the vehicle cost about \$5,000 and had a top speed of twenty-five miles per hour which was acceptable for the period. However, the drive from the transmission to the rear axle consisted of an enclosed center chain running in oil which was reported to be troublesome.³⁸ The City Directory listed the short-lived firm only in 1914.

INTERNATIONAL HARVESTER 1929 St. Paul

In the building at 2572 University Avenue previously occupied by Willys-Overland Company, International Harvester built Six-Speed-Special trucks from January to October, 1929. Up to thirty trucks a day were produced at this facility.³⁹

JOERNS-THIEM

1910

1908-1913

St. Paul

Fred Joerns and Edward A. Thiem were president and secretary of the firm at 2237 Hampden Avenue⁴⁰ which produced a few vehicles, probably light delivery machines, in the century's second decade. The automobile census for 1910 lists one "Joerms" [*sic*] and two "Thiem" vehicles.

Edward Thiem had previously produced motorcycles at his business at Thirty-eighth Avenue Northeast and University Avenue, the same address given for the Motor Buggy Manufacturing Company plant and, later, for the Hoffman truck establishment.⁴¹

KATO

Mankato

Trouble with wheelspin while motoring up Mankato's steep hills prompted candy-maker Emest Rosenberger to start thinking about how to get better traction. To solve this problem he designed a four-wheel-drive auto chassis and helped organize the Four Traction Auto Company of Mankato. Its first five cars, produced in 1908, used Brennan two-cycle engines. In 1909 it showed a one-and-one-half-ton truck, priced at \$2,250, in Minneapolis. In the next three years a crew of about twenty men manufactured twenty-five to thirty trucks and nearly a dozen cars. A three-ton truck, designated model H, was offered in 1913. At this time the assets of the firm were pur-



KATO TRUCK

KATO CAR



chased by the Nevada Manufacturing Company of Nevada, Iowa. Parts, drawings, and vehicles in progress were moved to Iowa, but no vehicles were built despite a federal government order for 500 trucks.⁴²

LENDE

1902-1909?

Granite Falls

Olaus Lende began building cars in his machine shop in Granite Falls in 1902, and by the time he forsook the manufacture of Lendes to be a Studebaker agent, he had built eighteen cars. Lende personally designed and manufactured the cars' four-cylinder, air-cooled engines which drove by means of a friction transmission.⁴³

In 1907 dreams of bigger markets led Lende and several other men to begin selling stock in the Lende Automobile Manufacturing Company out of a Minneapolis office. However, a year's efforts to sell stock and locate a factory bore no fruit. In a letter to Lende, an agent lamented, "I was at Farmington again this afternoon and must say that the prospects for doing anything there upon the proposition we have before them is very doubtful." Back in Granite Falls, after his unsuccessful venture, Lende probably continued to build vehicles for some years.⁴⁴

LENDE



LENHART

1920

Minneapolis

It is not clear from the available information (one advertisement) whether the Lenhart Motor Truck Company, located at 2600 University Avenue Southeast, simply adapted passenger cars for truck use or if it manufactured trucks from standard components. The firm, which existed for about one year, is notable only because its secretary, Fenton A. Leicher, also founded and operated — in cooperation with his brother — the highly successful Luverne Automobile Manufacturing Company at Luverne, Minnesota. A comparison of the existing newspaper pictures indicates a strong resemblance between the Lenhart and the Luverne farm truck which were marketed in the same year. Both trucks were rated at two tons and sold at similar prices.⁴⁵

LUVERNE

Luverne

1905-1918

Trucks until 1921

The precedent of carriage builders becoming automobile producers was well established when carriage men Fenton A. and Ed L. Leicher built their first machine in 1905. That vehicle came in kit form from a St. Louis manufacturer. Next they produced a series of high-wheeled vehicles powered by engines from the plant of David Buick. When, in 1908, W. C. Durant acquired the Buick firm as the first building block in his creation of General Motors, the Leicher brothers turned to engines from other sources.⁴⁶

The three autos featured in the 1907 Luverne catalog, models A, B, and C, had an interesting common feature: their bodies tilted up to allow access to the works underneath. Model A was a sixteen-horsepower touring car, model B was a twentyhorsepower surrey, and model C was a ten-horsepower runabout. B and C were also available with high wheels and solid tires.⁴⁷

The Luverne's reputation grew as the brothers brought out more models to keep up with new mechanical developments and increasing competition. A forty-horsepower, seven-passenger touring car was announced in 1909. The next year models A, B, and

LUVERNE RUNABOUT





"BIG BROWN" LUVERNE

C were dropped from the line, and five models, using three different engines, were produced on chassis from 110 inches to 120 inches in length.⁴⁸

The hit of Minneapolis' 1912 auto show was an impeccably finished Luverne on a 122-inch chassis. Seventeen coats of hand-rubbed brown paint and brown Spanish leather upholstery demonstrated the Leichers' coachmaking art. Because most cars of the era were still black, the public dubbed their work the "Big Brown Luverne," and the next year the nick-



LUVERNE

name began to appear in advertisements.⁴⁹

The Leicher brothers kept pace with automobile development, making several model changes before auto production ceased in their plant. They also announced a one-ton truck in 1911 and, in 1913, built a fire engine for the local department. (Both vehicles were harbingers of the Leichers' future.) The top of the Luverne line was a sixty-horsepower, seven-passenger touring car on a 130-mch chassis produced in 1918. Then, the additional machinery necessary to make the closed car bodies which came into demand caused the firm to turn to truck production until early 1921 and then solely to fire engines. Today, with a fourth generation of Leichers in the firm, the Luverne concern continues to assemble fire engines, using truck chassis from other manufacturers.⁵⁰

MAGNOLIA

1907-19??

Magnolia

In years gone by, the town blacksmith was often a versatile craftsman, and in 1906 Tom Dean of Magnolia was no exception, as a note in the Magnolia Advance indicated. It read: "W. R. Faragher of Adrian has had his automobile at Dean's repair shop for needed repairs. Tom can fix most anything." Within a year Dean com-pleted his first car. Harry Dean, Tom's son and helper, called the first two autos Minnesota Specials No. 1 and No. 2. A third car carried the legend "Magnolia." The late Cedric Adams, well-known columnist and radio personality, learned to drive in the Magnolia owned by his uncle, John Faragher.⁵¹

MAPLEBAY

1907

Crookston

An air-cooled, twenty-two-horsepower engine drove this runabout made by the Maplebay-Windstacker Company, a Crookston implement firm. The car had a Reeves engine and friction transmission. Apparently the auto was produced in 1907. The January 30, 1908, issue of Automobile magazine decribed the car and hinted



MAPLEBAY

that series production was being considered. In April of that year, the Crookston Daily Times noted that several North Dakotans were in town to inspect the auto "made last year" by the Windstacker Company.52

MAYER SPECIAL

1907

Mankato Louis Mayer began designing his V-8 auto in 1903, and he had it running



MAYER

with a "makeshift" body four years later. Aloys Mayer, Louis' son and a car buff, described the machine in some detail: "The car had two speeds forward, 1 reverse, 37 x 41/2 [inch] tires . . . 7 pass. [passengers] with bucket seats in front ... tool compartment in the center of the two seats, aluminum floor boards, diamond point [upholstery], 1 pc. windshield, no starter." The car is pictured here with a body which was mounted on the car in 1912.

The Mayer Special's V-8 engine, which was very unusual at that time, had iron cylinders cast in pairs, and the remainder of the engine case was cast in aluminum. Modern V-8 construction practice attaches each piston rod to the crankshaft journal. Mayer, however, accomplished this connection by hinging four rods from their mates on the opposite bank of cylinders just above the crankshaft. The car was driven in Minnesota and Wisconsin for several years before being cut up for scrap.53

M. B. 22, see ACME

MESSENGER, see BRASIE PACKET

MICHAELSON

1914 Minneapolis Cyclecars such as the Michaelson were typically two-seat machines with

a tread of less than forty inches. Seating was sometimes side-by-side and sometimes fore-and-aft. During 1913 and 1914 a cyclecar craze swept the country, and more than one hundred United States firms planned to produce little autos to cash in on the fad.

The Michaelson cyclecar was proposed by the Shapiro-Michaelson Company, a manufacturer of motorcycles, at 526 South Fifth Street, The most prominent member of the firm was J. M. Michaelson who had designed the Minneapolis two-speed motorcycle introduced in 1909. In 1912 he and Walter E. Michaelson had left the Minneapolis Motorcycle Company to form their own business, the Michaelson Motor Company, which later became the Shapiro-Michaelson firm. No production figures are known for the firm's cyclecar, but newspaper photographs at least indicate that a prototype vehicle did exist.54

Then, in April, 1914, Lee W. Oldfield, "well known racing driver," took over as president, and Walter Michaelson resigned, reportedly to manufacture the cyclecar elsewhere.55 Joseph Michaelson moved to the Brasie Motor Car Company as sales manager. Unfortunately, the cyclecar fad faded, and so did Michaelson's firm. By 1915 it had disappeared from the City Directory, and no further mention of the little car was found.

MINNEAPOLIS

1910

Minneapolis

The Minneapolis Motor and Truck Company was organized in July, 1909, at which time it announced plans for a factory at Ninth Street and Ninth Avenue South which would produce one-, three-, and six-ton trucks. A three-cylinder, two-cycle engine was announced in August of the same year, and a prototype was completed for the Minneapolis auto show in February, 1910.⁵⁶

In August, 1910, Farm Implements magazine noted that the company was scheduled to move to Downing, Wisconsin. No vehicles named "Minneapolis" were registered in Minnesota, however, until 1913 when the Robinson-Loomis Company used the name.⁵⁷

MINNEAPOLIS, see ROBINSON

MINNESOTA SPECIAL, see MAGNOLIA

MOORE

1915–1917 (1917–1921) Minneapolis (Danville, Illinois)

If one uses the number of vehicles produced as a measure, the Moore Motor Company was one of the most successful of Minnesota auto manufacturers. Although no actual production figures are available, two sources indicate the scope of the company's output. The state automobile census listed forty-two Moores in 1916, and a 1923 auto directory recorded the serial numbers issued for 1916 as 1 through 200 and for 1917 as 200 through 800. (Of course, all the numbers in the series may not have been actually used.) 58

The first Moore, the model 30, came out in mid-1915. It was an open touring car of conventional design, driven by a twenty-seven-horsepower Golden, Belknap, and Schwartz engine, and priced at \$695. In January, 1916, the price dropped to \$550 "fully equipped, including electric starter and lights."⁵⁰

The Moore factory moved to Danville, Illinois, by July, 1917, and in view of postwar inflation the price of its autos began to rise. The next year a Moore was available for \$695 in black or brewster green, and in 1921, shortly before its demise, one could be had for \$895.60 The components of the Moore car, apparently all supplied by other firms, were assembled at a plant at 501 First Avenue Northeast. Showrooms were located first at 1406 Hennepin Avenue and later at 726 Hennepin in Minneapolis.

NEW WINONA

Winona

1914

Each year between 1914 and 1916 two vehicles were registered under the name "New Winona" or "Winona." Probably only two vehicles existed, and they were most likely the product of the New Winona Manufacturing Company, builders of farm implements. A listing of truck registrations for 1917 also has one entry under this name.⁶¹ OVERLAND

1920 - ?

1895

St. Paul

The well-known Willys-Overland firm, based in Toledo, Ohio, built an imposing facility at 2572 University Avenue (now occupied by International, Harvester) in 1915. It was used for storage and distribution until the United States government took it over for aircraft training in 1917. Willys-Overland reoccupied the building in 1919 and for a time assembled cars there.^{G2}

OWATONNA

Owatonna

Possibly three autos were built in Owatonna before 1900. In 1895 Frank Labare and D. J. Ames produced a gasoline car at the Owatonna Manufacturing Company shops which was driven on the town's streets before being sold to Chicago interests. The car's two six-inch cylinders produced two horsepower which was transmitted to the rear wheels by cogs.⁶³

By a curious coincidence a Mr. Nichols of Owatonna built a steam car for A. C. Ames of Chicago in the same year — 1895. Despite the similarity of year, place, and name, the well-documented differences in motive power strongly suggest two different cars. (See AMES.)

What may have been a third pre-1900 Owatonna car, also credited to the Owatonna Manufacturing Company, appeared at the 1896 bicycle show in the Minneapolis Exposition Building. The vehicle, pictured in the





OWATONNA MOTOCYCLE

local press with the caption "The Owatonna Motocycle," appears to have been electric.⁶⁴

PAN

1918-1922

St. Cloud

The name of the Pan automobile was besmirched with notoriety when the firm's promotor and president, Samuel Pandolfo, was finally convicted of mail fraud December 6, 1919. His wellpublicized trial in Chicago had followed a series of earlier investigations by private organizations and by the Minnesota Securities Commission which had raised suspicions but found no fault in his promotional schemes.

However questionable Pandolfo's operating methods, he did manage to build an extensive manufacturing facility in St. Cloud and produce 747 Pan automobiles (according to G.N. Georgano's Complete Encyclopedia of Motor Cars). The first ten Pans were built by Reid and Glaser of Indianapolis, Indiana, and unveiled at a huge Fourth of July barbecue at St. Cloud in 1917. Actual series production began the following year with the model 250. In 1919 minor improvements in-

PAN



spíred a change in designation to model A.

In construction, the Pan was a fivepassenger, four-door touring car with an L-head Continental engine. Its component layout was conventional. Two unusual features, however, were front seats which folded down into beds and — Pandolfo's own idea — a five-part combination tank which was mounted at the rear of the car. The tank had ice-cooled spaces for drinking water and food storage, a tool compartment, and tanks for extra oil and gasoline.

The Pan was a success until Pandolfo's conviction and resignation. The company's board of directors, composed of St. Cloud businessmen, tried to revive the dream, but the firm's tainted reputation, its inexperienced management, and the postwar recession combined to put the firm out of business.⁶⁵

PERFECTION

1924–1925MinneapolisThe Perfection Truck Company oper-
ated at 531 Lyndale Avenue North in
the years 1924 and 1925.66

PRIDEMORE

1914

Northfield

The racy, low-slung Pridemore cyclecar made its first and last auto show appearance in February, 1914. It was a two-seater built by the Pridemore Machine Works "along conventional lines of a foreign cyclecar." An air-



PRIDEMORE

cooled, V-2 engine of "12, 14" horsepower drove the car by means of a friction transmission and a differential mounted on the jackshaft. Roller chains carried the power from the jackshaft to the rear wheels.⁶⁷

There is no evidence to suggest that more than one prototype of this 600-pound, wire-wheeled auto was ever built.

RENVILLE, see ACME

ROBINSON

1909-1920? Minneapolis

Thomas F. Robinson inaugurated his vehicle business in 1909 with the Gopher one-ton truck. It came with a two-year guarantee and sold for \$1,800. The next year he was joined by Freeman L. Loomis, and they formed the Robinson-Loomis Truck Company. After selling fifty-seven trucks, Loomis left the firm in October, 1912, and the firm name changed again to the Robinson Motor Truck Company. In 1913 it offered its "leader," a one-and-one-half-ton model F truck, at \$1,740. A one-and-onehalf-ton model B and a two-ton model D were also available at \$2,500. In September, 1913, Robinson's firm de-



GOPHER

livered a five-ton truck to a local transfer company which had an engine that developed fifty horsepower at 900 revolutions per minute. (Due to improvements in lubrication and metallurgy, modern engines run at speeds much higher than 900 revolutions per minute. A typical V-8 auto engine will run up to 5,000 revolutions per minute, and some racing engines will turn twice that speed.) Four sizes of trucks were available in 1915.⁶⁸

Little is known about the firm after 1915, but in 1920 Robinson was still building trucks, according to a list of manufacturers. In that year Robinson advertised "utility truck attachments [which] will convert your good used car into a dependable truck," indicating that he was at least partially involved in body building. *City Directory* listings continue until 1924.

ST. CLOUD

1920

St. Cloud

Eight days after Samuel Pandolfo, president of the Pan Automobile Company, was convicted of mail fraud, factory manager L. R. Brown left the firm to start the St. Cloud Truck Company. Brown became vice-president and general manager of the firm, and Charles D. Schwab became president. Schwab was also president of a local bank and the Pan Automobile Company in that firm's waning years.⁶⁹

The St. Cloud truck, rated at twoand-one-half tons, was assembled largely of readily available components produced elsewhere. The prototype was shown in St. Cloud on February 28, 1920, and several trucks soon saw service in the local granite quarries.⁷⁰

¹Occasional advertisements and articles about the machine appeared in the St. Cloud Journal-Press throughout the summer and fall of 1920. In November a new manufacturing facility, separate from the sales and service division, was announced, a one-ton model was introduced, and production was reported at five trucks per month.⁷¹ The time and circumstances of the company's failure are not known, but no advertising was found in the Journal-Press during 1921, and only the St. Cloud City Directory for 1920–1921 mentions the firm.

SARONI

1880

St. Paul

Probably the first Minnesota-built, self-propelled vehicle was the steam wagon built by Herman Saroni in 1880 in the coppersmith shop of Henry Bonn on Cedar Street. Saroni mounted a steam engine and seat on the wagon, devised driving and steering mechanisms, and drove his machine on city streets.⁷²

SCHURMEIER

1910-1911

St. Paul

1910

In May, 1909, the Schurmeier Wagon Company "decided to engage in the manufacture of a buggy-type auto." By September a prototype delivery truck had been completed, and plans were being drawn for a heavy truck. Firm president Frank I. Whitney then organized the Schurmeier Motor Car Company with H. H. Bigelow, the president of the Brown and Bigelow advertising concern, as vice-president. A few trucks were built at the wagon plant before the new factory at Griggs

SCHURMEIER



Street and University Avenue was opened at the end of 1910.78

In its short life the firm built about 100 light delivery trucks with twocylinder, two-cycle, in-line engines and a few larger trucks designated model D (two-ton) and model E (three-ton). Models D and E were powered by three-cylinder, two-cycle engines with rotary sleeve valves.⁷⁴

engines with rotary sleeve valves.⁷⁴ By December, 1911, the Schurmeier firm had gone into receivership, and H. H. Bigelow had purchased the assets. He may have continued to produce vehicles for a short time. As for the original wagon company, it began producing truck bodies under the name of the Schurmeier-Whitney Company—in 1919, directed by Alf C. Whitney.⁷⁵

STARR (STAR?)

Minneapolis

In September, 1909, Farm Implements magazine announced expectantly: "The Northwestern Auto & Motorcycle Company... will succeed to the business of the Minneapolis Motor Cycle Company. The new concern will also manufacture automobiles and a factory for that purpose is to be erected. Fred W. Starr...

formerly superintendent of the factory of the White Manufacturing Company, Cleveland, Ohio, will design the new car and take management of the factory."⁷⁶

Early in 1910 the Minneapolis Journal auto show supplement listed the Northwestern Automobile and Motorcycle Company as the supplier of Minneapolis Motor Cycles. Curiously, the cycles were also advertised in the same issue by the Minneapolis Motor Cycle Company. The latter, however, continued in business until late 1913 when it was absorbed by the H. E. Wilcox Motor Company. No further mention of the Northwestern firm was found by this author.⁷⁷

Starr, however, had other outlets for his entrepreneurial energy. Just two short months after the Northwestern venture had been launched, he had also incorporated the Starr Motor Car Company with an initial capital of \$50,000. Working with unusual speed, the firm announced on January 9, 1910, that the Starr car would be ready for demonstration in ten days, just in time for the yearly Minneapolis auto show. The Starr was said to be available with four- or sixcylinder engines at \$1,000 and \$1,500. Brownell engines and transmissions were used on a chassis with a 100inch wheelbase.⁷⁸

In May, 1910, the Starr Motor Car Company expanded its capital to \$200,000. The next month the people of Downing, Wisconsin, were reported as "highly elated over the fact that the Starr Motor Car Company of Minneapolis is to build there." The offices and selling department were to remain with Starr in Minneapolis.⁷⁹

Minnesota vehicle registrations for the "Star" car — probably the product of Starr's firm — reached a peak of ten autos in 1913, after which the number began to decline. Starr's firm disappeared from the Minneapolis City Directory after 1910, and Starr himself was listed in 1911 merely as a salesman for the Auto Inner Casing Company. The 1912 directory reported that he moved to Dubuque, Iowa.

STICKNEY

1894

St. Paul

One of the earliest vehicles to propel itself on St. Paul streets was the creation of Charles A. Stickney, teenage son of the founder of the Great Western Bailway and a machinist in his father's railroad shops. In February, 1894, the young Stickney decided to put together a steam carriage. It was completed by the month of May. To a boiler and engine which

STICKNEY STEAM AUTOMOBILE





STICKNEY (side and top views)

had powered his tools in his personal shop, he had added a kitchen chair for a seat, "two wheels from his father's spring wagon, and one wheel from a pony cart belonging to one of his sisters." On the brakeless vehicle's second run, however, the steering tiller loosened from the front wheel, and Stickney was sent wobbling and weaving down Summit Avenue at the then lofty speed of fifteen miles per hour. When the steam car finally coasted to a stop, Stickney's father ordered the boy to park it behind the house where it was soon dismantled.⁸⁰

Stickney later formed a company to produce stationary gasoline engines, and, in 1914, that firm announced production of a cyclecar.

STICKNEY MOTORETTE

1914 St. Paul For a number of years, the Charles A. Stickney Company had successfully manufactured a line of stationary gasoline engines and marketed them through eighteen distributors scattered from San Francisco to Boston. Early in 1914 Stickney, who twenty years earlier had built a steam car, announced that his firm would produce an automobile.⁸¹

The machine was another local entry into the cyclecar field, but because it was "finished in unusual elegance for that type of car," the firm named it a "motorette." A four-cylinder, water-cooled engine drove the two-passenger, tandem-seated car. Its most unusual feature was the placement of the driver in the rear.⁸²

Hints of cracks in the firm's solid reputation occurred that year. Advertisements for the stationary engine which had been regular features in *Farm Implements* magazine were abandoned, and Stickney moved from St. Paul to Green Lake, Wisconsin, and, later, to Chicago. In 1917 the firm had only one agent in St. Paul, and even he was dropped in a year. Stickney returned to St. Paul in 1920 — to open a pencil factory.⁸³

SWEDLAND

1902?

Atwater

E. J. Swedland, Atwater jeweler, built a car around 1902, using a mail-order engine and a transmission which he invented and patented. Later he took the engine from the front of his first car and placed it in the rear of the larger chassis of his second successful automotive venture.⁸⁴

THIEM, see JOERNS-THIEM

TWIN CITY, see BRASIE PACKET

TWIN CITY

1914

Minneapolis

The Twin City cyclecar, built by R. R. Griffith for C. H. Scholer, seated two passengers side by side and was distinguished for its quiet operation. The car's low noise level was a result of the use of piston valves in the four-cylinder, air-cooled engine. Piston valves are mechanically more complex and less efficient than poppet valves which were, and are, more commonly used.⁸⁵

The first appearance of this cyclecar on the streets of Minneapolis



TWIN CITY CYCLECAR

caused something of a sensation. As the *Minneapolis Journal* reported it, "crowds stopped to watch the silent little car with the long racy body as it threaded its way through the maze of automobiles and carriages laden with good people returning from church."⁸⁶

TWIN CITY

1917-1922 St. Paul and Minneapolis

Two firms produced four-wheel-drive trucks under the name Twin City. Each used patents purchased from J. L. Ware (see WARE) who, himself, was president of one of the companies, the Twin City Four Wheel Drive Company located at 2470 University Avenue in St. Paul. In Minneapolis the Four Wheel Drive Manufacturing Company at Eighteenth Street and Central Avenue Northeast produced the same truck in the plant formerly occupied by the Nott Fire Engine Company.⁸⁷

In March, 1915, a somewhat cryptic news item in the *Minneapolis Journal* noted that the five-ton, fourwheel-drive trucks of a Twin Cities "concern" had "found favor with the transportation experts of the British army" and that the firm was to deliver to them thirty trucks by June 1. 1915, and "25 a month for an indefinite period." Since only Twin City Four Wheel Drive and Four Wheel Drive Manufacturing specialized in this type of truck, most likely one or both received the substantial contract. Support for this hypothesis comes from the fact that the two firms jointly announced a contract for 3,000 trucks "for delivery overseas." ⁸⁸

At the Minneapolis auto show of 1917 a two-ton Twin City truck was exhibited. A concurrent advertisement for one of its trucks carried these specifications: four cylinders, 5¹/₁₀-inch bore, 5¹/₂-inch stroke, 6,000-pound chassis, pressure lubrication, multipledisc clutch, three speeds forward, one speed reverse, four wheel brakes, 140inch wheelbase, and Prest-O-Lite side and tail lamps.⁸⁹

The St. Paul firm is listed in the *City Directory* until 1922. The Minneapolis concern never received a listing.

TWIN CITY four-wheel-drive



TWIN CITY

1918–1929 Minneapolis The Minneapolis Steel and Machinery Company is best known — as are its successors, Minneapolis Moline and White Farm Implement Company — for its manufacture of tractors. Nevertheless, Minneapolis Steel

TWIN CITY model "DW" bus





TWIN CITY TRUCK

successfully entered the truck field with two-ton and three-and-one-halfton vehicles in 1918. These sturdylooking trucks were available in several body styles, including stake, van, express, and dump models. At least seven of the latter were delivered to the St. Louis County highway department in 1922.⁹⁰

In 1923 the firm began building busses to serve the adolescent bus transportation business which was booming in Minnesota. The model DW bus, built in the mid-1920s, sped twenty-five passengers to their destination at forty miles per hour. A sixty-horsepower engine powered the modern motor coach which was suspended in front by "air springs" patented by the builder.⁹¹

VEERAC

1910-1913

Anoka

Veerac, the name of a light delivery truck, was an acronym derived from the company's advertising slogan, "valveless, explosion every revolution, air cooled." The firm's first three-quarter-ton truck was built in Minneapolis and tested in 1910. The managers of the company failed to find a satisfactory site for a factory in the Twin Cities, however, and so they accepted an offer by the Commercial Club of Anoka to locate there. By February, 1911, the facility was complete, and production began. Production probably came to an end in late 1913 or early 1914. Minnesota registrations reached a maximum of 103 vehicles in 1914.92

The Veerac truck was powered by a two-cylinder-opposed, two-cycle engine of twenty horsepower which was



manufactured at the Anoka plant. A transmission with one reverse and two forward gears was used. Three body styles were offered — open express, stake, and express — at prices ranging from \$850 to \$1,000.93

WALLOF

1910

Minneapolis

The Wallof Motor Truck Company was formed in 1910 to produce light delivery vehicles. Despite the fact that the firm existed until 1912, its output was probably limited to the one Wallof vehicle listed in the auto census between 1911 and 1915. The truck used an air-cooled, two-cylinder, two-cycle engine and was to sell "at about \$750."⁰⁴

1912–1915

St. Paul

The Ware truck's construction was based on J. L. Ware's patent for an unusual four-wheel-drive system. While the exact mechanical arrangement of

WARE

WARE



the drive train is not known, one news article called it a "triple shaft drive machine." 95 The accompanying photo clearly shows a single shaft running from a gear case in the chassis center to the rear axle gears and suggests the possibility of a shaft to each front wheel. (Contemporary four-wheeldrive practice used two shafts, driven by a set of gears mounted behind the transmission, which turned differentials on the front and rear axles. A differential, by means of gears within gears, allows one wheel to travel farther than its mate on the same axle when a vehicle turns corners.)

The Ware used a water-cooled, forty-horsepower gas engine with locally made Wilcox-Bennett carburetors. It was available on three chassis with three-quarter-ton to three-ton capacities and was priced from \$2,500 to \$3,500. The factory at 771 Raymond Avenue also modified Ford cars for delivery and jitney bus use.⁹⁶

Ware was general manager of this firm, Ware Motor Vehicle, which, according to the vehicle census, built only three trucks before its demise in 1915. In that year a more successful company, Twin City Four Wheel Drive, was formed, and Ware served as president.

WESTMAN

c. 1900

The practice of predating early automobiles adds confusion to the study

Minneapolis

VEERAC



WARE JITNEY BUS

of auto history. A brief note about E. Westman's one-of-a-kind machine in the 1925 auto show issue of the *Minneapolis Journal* stated that he built the car in 1897 when he was associated with the Enterprise Machine Company. Another source says he joined the company in 1900.⁹⁷

WHALEY-HENRIETTE

1898

St. Paul

Among the early gas-engined autos to appear on St. Paul's streets was the one built by Charles F. Whaley of the Whaley-Dwyer Company, manufacturers of bicycle specialties. On a business trip to the East Coast, Whaley saw an early auto, and, on his return, he constructed one.

The motor of Whaley's machine, mounted rigidly to the frame and axles, had a single cylinder with make-andbreak ignition fired by wet batteries in glass jars. A two-speed planetary transmission drove thirty-six-inch coach wheels with a chain. The body of Whaley's car, mounted on springs about a foot above the frame, vibrated violently whenever the engine was idling. During its appearance in the 1900 St. Paul Elks Club parade, a bystander sarcastically queried, "Hey, what are you fellows doing there, shaking for drinks?" With foresight the St. Paul Dispatch commented on the autos bringing up the rear of the same parade: "Three vehicles rolled quietly along the street as a suggestion that the horse may some day be as purely ornamental as the Elk." 98

WHALEY-HENRIETTE



WILCOX

1907-1926?

Minneapolis

The H. E. Wilcox Motor Car Company began its relatively long career as a manufacturer of motor vehicles with the 1907 Wolfe. Production of cars was soon overshadowed by truck production; the latter continued well into the 1920s. By the end of 1909, the name Wolfe was dropped, and the autos, which continued to be made into 1913, were named Wilcox with few changes in design. The car was originally powered by a twenty-fourhorsepower, air-cooled engine, but by July of 1908, a thirty-horsepower, water-cooled engine was used. Late in 1909, the car was available with touring, baby tonneau, or "gentleman's roadster" bodies and sold for \$1,500. According to Northern Lights, fewer than one hundred Wolfes were built.99

Truck production began in 1909 with one-ton and three-ton models. The one-ton truck was available with the engine beside the driver (model D) or in front (model E). The next year Wilcox shipped a bus to South Dakota. "It is a combination mail wagon and stage coach, and will replace two automobiles and a horse." A new plant in 1909 and increases in capital that year and again in 1913 and 1914 made the firm one of the most successful local producers of vehicles. By 1918 Wilcox was making trucks in six sizes, ranging from threequarter-ton to five-ton capacity and advertising 447 trucks in use in the Twin Cities. The 1922 models ranged from the one-ton AA at \$1,900 to the fiveton F at $$4,350.^{100}$

In the 1920s, commercial motor transport between cities began to grow. To meet this new demand, Wilcox introduced a line of six-cylinder engines ranging from 80 to 105 horsepower, thus making faster trucks available and increasing bus production.¹⁰¹

Sales manager Čarl H. Will bought the firm from the Wilcox family in 1926 and changed the name to C. H. Will Motors Corporation a year later. From this time on, the motoring and local press made little mention of the firm's products. However, the City Directory lists Will Motors and its successor, Greyhound Motors and Supply Company, as truck manufacturers until 1936. Listings continue up to 1940.¹⁰²

WINONA, see NEW WINONA

WOLFE, see WILCOX

WREISNER

1904

Dassel

Peter and Nels Wreisner spent three years building this auto in their blacksmith shop in Dassel. A six-inch pipe served as the homemade engine's cylinder. Power was delivered from the engine to the jackshaft by chain and then to the rear wheels by one-inch ropes. The auto's tiller steering was reversible, allowing either passenger to guide the machine. When the vehicle was retired the engine was removed and put to use pumping water. Now restored, the engine is exhibited at the American Swedish Institute in Minneapolis.¹⁰³

HOPES, DREAMS, AND MISINFORMATION

The following is a catalog of autos and manufacturing firms whose names appear in one source or another but for which there is no evidence of actual manufacture or existence in Minnesota.



WOLFE chassis



WOLFE



WILCOX



A CATALOG OF MINNESOTA-MADE CARS AND TRUCKS -

ARROW

M. B. Gilman announced the formation of a company to produce the Arrow cyclecar on November 23, 1913. There is no evidence that any car was ever constructed.104

CHASE

In February, 1909, A. F. Chase announced plans to manufacture the auto for which he was already the distributor.105 The dealership persisted for several years, but the manufacturing plant never materialized.

CHAMPION

Several lists of automobiles built in the United States include this car which supposedly was built sometime between 1909 and 1915 by the Champion Motor Car Company. No evidence of its manufacture in Minnesota was found.

CONTINENTAL

On January 15, 1914, Motor Age magazine announced the production of this car by the Continental Engine Manufacturing Company of Chicago at a plant located at 1200 Fourteenth Avenue Southeast in Minneapolis. No local notice of this car appeared, and the same plant building was occupied by the Dispatch Motor Car Company in that year.

DAN PATCH and SAVAGE

Several cars were sold locally under

Footnotes

¹Statistics compiled by the author from magazines and newspapers of the period. ^a William W. Folwell, A History of Minnesota, 3:351 (St.

Paul, revised edition, 1969). ³ Dorothy V. Walters, "Pioneering with the Automobile," in Minnesota History, 26:19 (March, 1945).

* Frank and Charles Duryea are often incorrectly credited with building the first gasoline car in the United States in 1893.

⁵ Interview by author with George Forsyth's son, James S. Forsyth, July 27, 1972.

Minneapolis Journal, April 15, 1896, p. 10.

⁷Owatonna Peoples Press, October 11, 1895, p. 1.

[®] Olaus Lende Papers, in Yellow Medicine County Historical Society, Granite Falls.

Arthur R. Hirst, Earth Roads, 3, 4 (Wisconsin Geological and Natural History Survey, Road Pamphlet No. 1, Madison, 1907). A "thank-you-marm" is a small ridge or hollow made across a road, especially on a hillside, to deflect water. It may

cause a person driving over it to bob as if bowing. ²⁰ Farm Implements, December 30, 1913, p. 106 (quote); Automobile Census of Minnesota, 1910, 1914 (published by The Farmer, St. Paul).

these two names by the M. W. Savage Factories. The Savage family owned and promoted the famous harness racing horse, Dan Patch. In April, 1910, it was reported that the entire output of an Indiana factory was taken by the Savage firm, and national distribution of the car was to be operated from Minneapolis.100

DAN PATCH "TORPEDO"



COLBY see STANDARD MOTOR COMPANY (below)

GRANITE FALLS

This listing, which appears in some auto lists, probably refers to the Lende car.

HENDEL

No mention of William and Alexander Hendel of Red Wing was found other than a note in the March, 1904, issue of Farm Implements which reported that they "will remove to Minneapolis and engage in the manufacture of automobiles." 107

MINNEAPOLIS AUTOMOBILE MANUFACTURING COMPANY

This firm was organized in 1906 to make passenger cars which were to be called the "Minnie." No evidence of actual construction has been found.¹⁰⁸

SCHMIDT

The St. Paul City Directory for 1910 lists the Schmidt Auto Manufacturing Company at 1642 University Avenue. No product is known.

STANDARD MOTOR COMPANY

This firm was organized to "effect a consolidation of the Minneapolis Motor Co. with the Colby Motor Co. of Mason City, Iowa." Apparently the consolidation never materialized, since the Colby firm went into bankruptcy the following year. This notice probably gave rise to Minneapolis being occasionally credited with the manufacture of the Colby car.109

TWIN CITY MOTOR CAR COMPANY

Notice of the incorporation of this firm was carried in Farm Implements in late 1912. The headquarters of the company was at Lemmon, South Dakota, and a business office was in St. Paul. No further notice of this firm was located.110

¹¹ Minneapolis Journal, September 11, 1910, dramatic and social sec., p. 8, January 9, 1910, second news sec., p. 5.

"Farm Implements, January 31, 1910, p. 56.

³⁵ Farm Implements, April 30, 1912, p. 40, August 31, 1913,

p. 60. ¹⁶ Minneapolis Journal, December 22, 1912, second news 19 1908 n. 26 (quote). sec., p. 16; Farm Implements, December 19, 1908, p. 26 (quote).

Automobile Census, 1912.

¹⁴ The most notable of the special purpose builders in Minnesota were the Duesenberg brothers whose shop at 2654 University Avenue turned out engines and racing cars between 1915 and 1917.

¹⁹ Minneapolis Journal, June 28, 1908, second news sec., p. 6; Farm Implements, March 31, 1910, p. 47.

²⁹ Farm Implements, December 31, 1909, p. 68; Automobile Census of Minnesota, 1914. All Minnesota vehicle registration statistics in this catalog are found in Automobile Census for the appropriate year or years.

²⁵ Farm Implements, December 31, 1910, p. 65; Minneapolis City Directory, 1910. All business addresses cited in this catalog are found in the City Directory for the appropriate city and year.

110 Minnesota History ¹³ Farm Implements, September 30, 1910, p. 1. ¹³ Farm Implements, February 28, 1910, p. 30b.

²² Horseless Age, December, 1895, p. 19.

²⁷ Crow Bar, November, 1895, p. 7.

²⁴ Swift County Monitor (Benson), April 12, 1940, p. 1; Swift County News (Benson), April 16, 1940, p. 1.

³⁵ Minneapolis Journal, March 3, 1907, auto sec., p. 8.

²⁰ Antique Automobile, 27:89 (March-April, 1963).

²⁷ Minneapolis Journal, February 9, 1913, second news sec.,

p. 4, July 26, 1914, second news sec., p. 7. Interview of January 3, 1964, with Charles Amble by James Forest, Minneapolis, of the Antique Automobile Club. Amble

ran a service station and garage near the factory. ²⁰ Interview with James M. Fahnestock, in the Minneapolis

Tribune, January 14, 1962, auto sec., p. 1.

³⁰ Motor Age, January 14, 1915, p. 33, January 4, 1917, p. 76; Automobile, 28:199 (January 16, 1913).

³¹ Motor Age, January 4, 1917, p. 76.

²² Automobile, 33:1030 (December 2, 1915); Minnesota State

Cazetteer and Business Directory, 1922-1923, p. 260 (St. Paul). ³⁰ Either the age or date may be in error. The 1895 Minnesota census reports Lincoln Fey as sixteen years old on June 26, 1895

³¹ Lincoln H. Fey, "School-boy Builders of Some of America's First Gasoline Motor Driven Vehicles," unpublished manuscript in the Minnesota Historical Society.

³⁵ Fey, "School-boy Buil**d**ers."

²⁶ St. Paul Pioneer Press, September 16, 1962, sec. 3, p. 8; Minneapolis Journal, January 31, 1915, city sec., p. 6; figures supplied by Ford Motor Company production office, St. Paul. Interview with James Forsyth at Franklin, Minnesota, by

the author on July 27, 1972. James Forsyth, the son of the builder, remembers riding in the machine.

³⁹ Telephone interview with C. Depew of St. Louis Park by James Forest on February 24, 1964. Mr. Depew's father once purchased a Hoffman truck for his transfer business.

²⁶ Manuscript in files of International Harvester Company, St. Paul.

* St. Paul City Directory, 1910 (St. Paul).

"Minneapolis City Directory, 1909, 1910 (Minneapolis). ⁴³ Mankato Free Press, February 15, 1946, p. 7; Minneapolis Journal, February 7, 1909, social sec., p. 7; Automobile, 28:202 (January 16, 1913); telephone interview with Ben Baugerter, secretary of the Four Traction Auto Company, by James Forest. Baugerter gave 1911 as the date of the move to Iowa, but a listing in the January 16, 1913, issue of Automobile located the firm in

Mankato at least as late as 1912. " Unsigned note in the Lende Papers, Yellow Medicine County Historical Society.

"Prospectus of the Lende Automobile Manufacturing Company, Lende Papers; Frank B. Simmons to Olaus Lende, July 9, 1908, Lende Papers.

⁴⁶ Minneapolis Journal, February 1, 1920, news sec., p. 16.

" Undated clipping in "Automobile" file, Minnesota Historical Society.

"Dick Philippi, The Big Brown Luverne, pamphlet at the Minnesota Historical Society.

"Stanley K. Yost, The Great Old Cars , . Where Are They Now?, 142 (Mendota, Illinois, 1960).

Minneapolis Journal, February 9, 1913, auto sec., p. 4.

²⁶ Yost, Great Old Cars, 143; Minneapolis Tribune, Febru-

ary 21, 1965, p. 5. ¹⁵ Magnolia Advance, October 19, 1906, p. 1; Harry Dean to Tom Reese, December 23, 1963, letter in the possession of Tom Reese, Minneapolis.

²² Automobile, 18:154 (January 30, 1908); Crookston Daily Times, April 28, 1908, p. 7.

³³ Aloys "Allie" Mayer to James Forest, December 8, 1964, letter in possession of James Forest, Minneapolis.

⁵⁴ Minneapolis Journal, February 9, 1913, second news sec., p. 9, February 1, 1914, auto sec., n.p.; Farm Implements, December 31, 1912, p. 55.

⁶⁵ Minneapolis Journal, April 5, 1914, second news sec., p. 12.

²⁰ Farm Implements, July 31, 1909, p. 43; Minneapolis Journal, August 1, 1909, social sec., p. 7, February 20, 1910, auto sec., p. 4. ⁵⁷ Farm Implements, August 30, 1910, p. 64.

³ Chilton's Automobile Directory, 1072 (Philadelphia, 1923). ³⁹ Minneapolis Journal, June 20, 1915, social sec., p. 10; Automotive Industries, 38:118 (January 10, 1918).

⁶⁰ Minneapolis Journal, January 30, 1916, n.p.; Automobile, 36:1118 (June 14, 1917), 36:1159 (June 21, 1917); Auto-motive Industries, 37:172 (July 26, 1917); G. N. Georgano, ed., The Complete Encyclopedia of Motor Cars, 1885-1968, 397 (New York, 1968).

61 Sparks, January, 1917, p. 16.

"Manuscript in the files of International Harvester Company, St. Paul; Minneapolis Journal, February 16, 1919, p. 7. ¹⁰ Owatonna Peoples Press, October 11, 1895, p. 1; Owa-

tonna Manufacturing Company, Owatonna is History: 1865-The

Year. . . , n.p., (n.d). " Minneapolis Times, April 5, 1896, p. 9, March 31, 1896, p. 8.

⁴⁵ For catalog information and the full story of the Pan, see Clark E. Hunting, "Pan Town on the Mississippi: A Study of St. Cloud and the Pan Automobile Company," master's thesis, 1962. The Minnesota Historical Society has a copy.

¹⁶ Minneapolis City Directory, 1924, 1925.

⁶⁷ Farm Implements, January 31, 1914, p. 64; The Pridemore Cyclecar, pamphlet in possession of James Forest. Also mentioned in Automobile, 30:524 (February 26, 1914). "Minneapolis Journal, March 14, 1909, auto sec., p. 13,

October 13, 1912, second news sec., p. 12, February 9, 1913, second news sec., p. 7.

⁴⁰ St. Cloud Journal-Press, December 20, 1919, p. 3.

¹⁰ St. Cloud Journal-Press, February 28, 1920, p. 5.

¹¹ St. Cloud Journal-Press, November 27, 1920, p. 7.

⁷² Dorothy V. Walters, in Minnesota History, 26:20.

¹³ Farm Ímplements, May 31, 1909, p. 44, September 30, 1909, p. 23, February 28, 1911, p. 26f; Minneapolis Journal, August 7, 1910, second news sec., p. 6, April 3, 1910, dramatic and social sec., p. 15.

"Horseless Age, March 2, 1910, p. 335; interview with Ben Baugerter, a Schumneier employee, by James Forest. "Farm Implements, December 30, 1911, p. 68; Minneapolis

Journal, February 16, 1919, auto sec., p. 2, February 3, 1924, p. 11, February 1, 1925, p. 4.

¹⁰ Farm Implements, September 30, 1909, p. 23.

" Minneapolis Journal, February 20, 1910, auto sec., p. 27, 34, February 1, 1914, auto sec., n.p.

¹⁸ Records of Incorporation, Book S-3, p. 202, in office of secretary of state; Minneapolis Journal, January 9, 1910, second

news sec., p. 5. Records of Incorporation, Book S-3, p. 728; Minneapolis Journal, June 26, 1910, second news sec., p. 9.

St. Paul Pioneer Press, February 20, 1921, sec. 5, p. 4.

"Farm Implements, January 31, 1910, p. 3, January 31,

1914, p. 70. Minneapolis Journal, January 18, 1914, second news sec., p. 11. ³³ St. Paul City Directory, 1914–1917. Daily Tribun

* West Central Minnesota Daily Tribune (Willmar), April 7, 1953, p. 14. * Automobile, 30:989 (May 7, 1914).

⁵⁰ Minneapolis Journal, May 3, 1914, second news sec., p. 10.

⁸⁷ Automobile, 34:951 (May 25, 1916).

Minneapolis Journal, March 14, 1915, p. 10; Automobile,

34:951 (May 25, 1916). The 1915 contract was probably signed by the Ware Motor Vehicle Company but passed to the successor firms.

^{sn} Minneapolis Journal, February 4, 1917, anto sec., p. 45.

"Minneapolis Journal, February 1, 1925, second auto sec., p. 4, February 5, 1922, p. 5.

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p. 4. ⁴⁵ Minneapolis Journal, August 25, 1912, second news sec., p. 12.

⁶⁶ Minneapolis Journal, March 7, 1915, city sec., p. 9.

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p. 1. St. Paul Pioneer Press, February 13, 1921, fourth sec., p. 6. ²⁷ Minneapolis Journal, January 27, 1907, editorial sec., p. 4 (advertisement), July 26, 1908, second news sec., p. 3; Farm Implements, November, 1909, p. 36, 37; Northern Lights, January, 1964, p. 4.

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¹⁰¹ Minneapolis Journal, February 1, 1925, second auto sec., p. 4. Minneapolis City Directory, 1925, 1926.

³⁰³ Robert E. Johnson, "Dassel's Horseless Carriage of 1904," in American Swedish Institute Bulletin, 15:31 (Winter-Spring, 1960).

¹⁰⁴ Minneapolis Journal, November 23, 1913, second news

sec., p. 12. ¹⁰⁵ Minneapolis Journal, February 21, 1909, dramatic and social sec., p. 6.

¹⁰⁰ Minneapolis Journal, April 3, 1910, dramatic and social sec., p. 15. ¹⁰⁵ Farm Implements, March 31, 1904, p. 16.

¹⁰⁹ Farm Implements, May 31, 1906, p. 16.

¹⁰⁰ Farm Implements, October 31, 1913, p. 14.

¹¹⁰ Farm Implements, December 21, 1912, p. 52.

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