

17 Montanans on the Move: The Coming of the Automobile – 1904–1940



FIGURE 17.1: *Missed the Turn*, by Max J. Woolley, 1983



READ TO FIND OUT:

- How automobiles changed everyday life in Montana
- Why some people hated automobiles—at first
- Why cars and trucks needed new roads
- How automobiles changed the Montana landscape

The Big Picture

Faster travel changes society, the economy, and the landscape. Few things have changed life in Montana more than the coming of the automobile.

In 1769 a French army officer named Nicholas Cugnot built a massive, three-wheeled carriage, installed a steam boiler on the front of it, and drove it down a Paris street. It raced along at three miles per hour—then ran off the road and crashed through a wall, spilling boiling water and hot embers everywhere. Inventor Cugnot was imprisoned and later thrown out of France.

The public did not think much of **self-propelled** (moving under their own power) vehicles in the 1700s. But inventors kept tinkering. By the late 1800s automobiles of many designs—powered by steam, electricity, and gasoline—appeared on the streets of the United States and Europe.

Automobiles changed American life in uncountable ways—especially across the vast distances of the West. Faster transportation gave people access to more land, more resources, and new ideas. It allowed people to trade goods more easily and cheaply, so a greater variety of products appeared in local stores.

Like railroads, automobiles made distant places seem closer. They changed the way people lived and interacted with one another. And—like railroads—automobiles transformed the landscape. But unlike railroads, automobiles were *personal* transportation. People could decide for themselves when and where they traveled.

Automobiles spread across Montana at about the same time as telephones, radios, and, in the cities at least, electric power. Together these powerful forces linked Montanans to one another and to the outside world. Automobiles—maybe more than anything else—transformed Montana into the land we live in today.

Life at a Horse's Pace

Imagine going through your day at the speed of a horse. You would ride to school at 3 or 4 miles per hour. The farthest you could travel would be 20 or 30 miles in a day. How would your life be different?

If your family lived even ten miles from town, as most people did in 1900, a simple shopping trip would take the whole day. You would rise early, harness the horses, make the long, dusty (or muddy) drive into town, and then tie up and water the horses while you ran your errands. You might make it home before dark—depending on the weather and the season. You would have to unhitch the horses, care for them before you turned them out to feed, and then finish your farm chores before you could even sit down to dinner.

On the farm, horses pulled plows and hauled the wagons that brought crops to market. In town, horse-drawn trucks delivered milk, store supplies, mail, freight, and other goods. You might jump on the train to go to the next town or a faraway city, but for everyday transportation most people walked or relied on the horse.

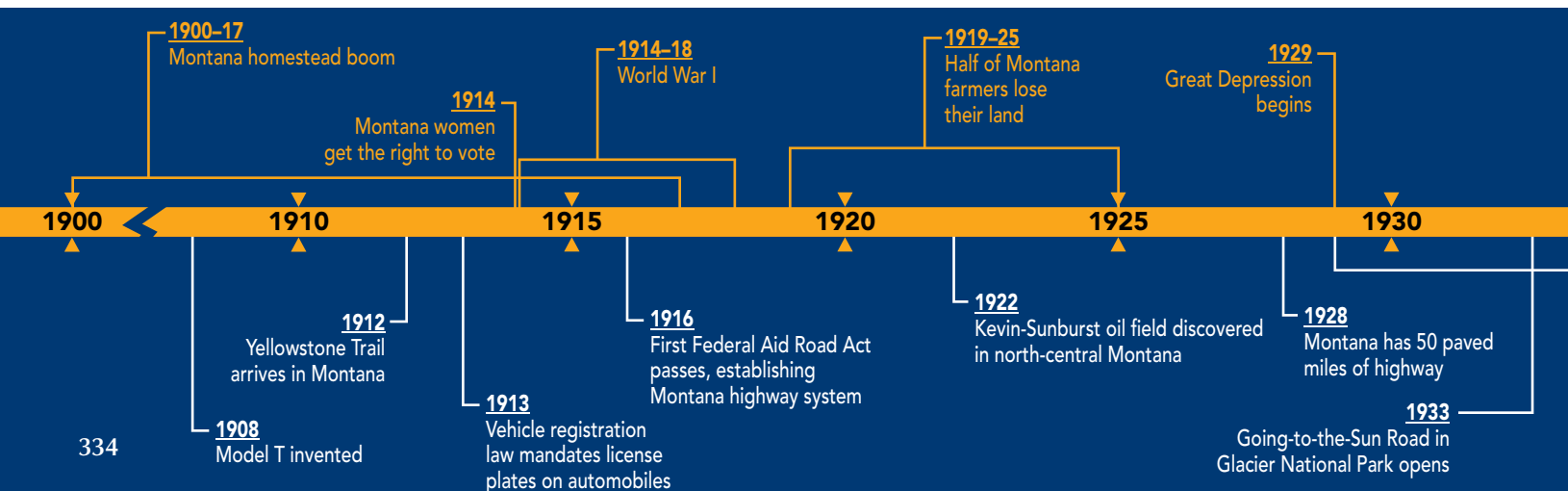
Transporting crops to the railhead—one wagonload at a time—took so long, and required so much manpower, that in 1900 it was cheaper to ship a carload of wheat by train to Chicago than it was just to get it from the farm to the train station.

FIGURE 17.2: Did you ride a bus to school this morning? Students in Corvallis in the early 1900s rode to school in horse-drawn buses with canvas sides to protect riders from rain, snow, and road dust. Each wagon had a little coal stove so students could stay warm.



The Carriage Leaves the Horse Behind

Europeans built the first commercially successful automobiles in the late 1800s. By 1900 dozens of little auto companies in the eastern United States were building cars, too. Ransom E. Olds,



creator of the Oldsmobile, started the first factory in the United States to mass-produce gasoline automobiles. The first cars were expensive—only the wealthy could afford them.

“You can’t get people to sit over an explosion.”

—COLONEL ALBERT A. POPE, A HARTFORD, CONNECTICUT, BICYCLE MANUFACTURER, ON WHY GASOLINE ENGINES WOULD NEVER BE POPULAR

Then a businessman and inventor named Henry Ford began building automobiles that middle-class families could afford. In 1908—just as the middle class was expanding nationwide—the Ford Motor Company introduced the practical, affordable Model T.

Ford’s Model T quickly pattered into every corner of the nation. Other auto manufacturers started up, too. By 1920 there were more than 1,000 car manufacturing companies in the United States.

In 1904 there were seven automobiles in Montana—one in Big Timber, one in Sweetgrass County, and five in Butte, the largest city. Two years later the *Montana Daily Record* reported that automobiles were “snorting about the streets” of Billings. Some were electric—one was steam-powered—but most were powered by gasoline.

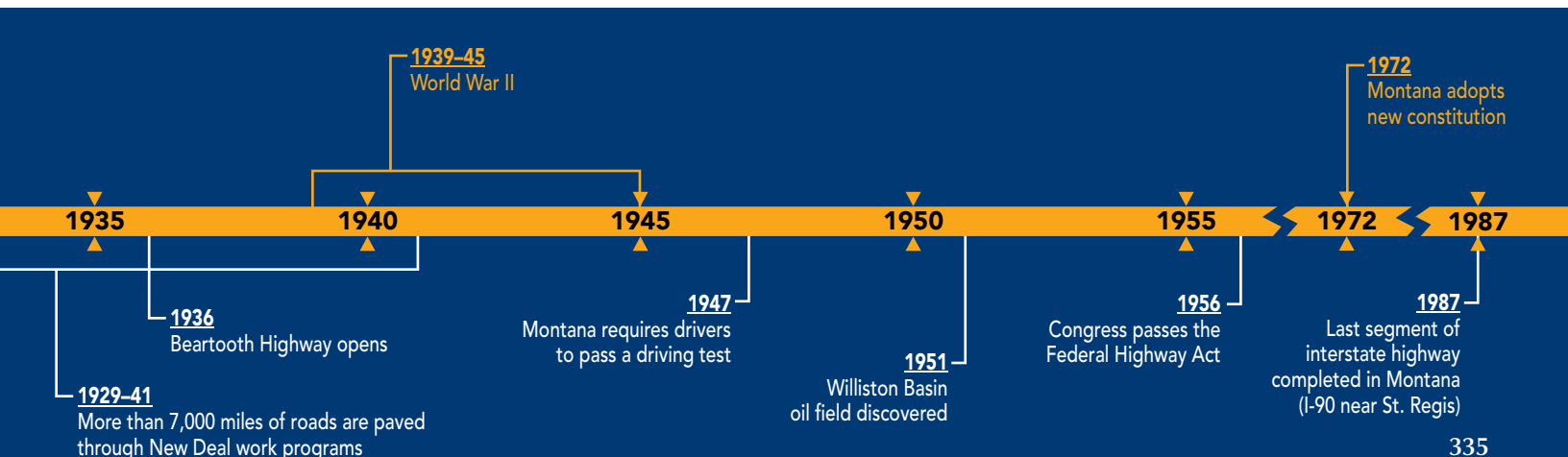
Noisy, Unreliable, and Dangerous

The first cars had thin, bald tires, no top or windshield, and feeble kerosene headlights (if they had headlights at all). They were hard to steer, especially in mud, and took a long time to stop once they got going. Brakes failed, radiators leaked (“Just add oatmeal,” one driver’s manual advised), wheels broke off, and tires went flat. No one left home without a spare tire or two, a patch kit, and a hand pump for the tires.

Early gas-powered automobiles started by hand cranks. Sometimes the cranks kicked back with such force they could break your arm or give you a black eye.

Bumpy roads jiggled car parts loose, as the Van

FIGURE 17.3: In 1910 auto dealer J. A. Bean of Bozeman began selling the Laverne “Montana Special” for \$3,000—equal to about \$65,000 today. You had to be pretty wealthy to buy one of these.



“The boys in my gang were torn between a desire to own a Stanley Steamer and the wish to continue living.”

—AN EARLY FAN OF THE STANLEY STEAMER, A FAST, POWERFUL, AND POPULAR STEAM-DRIVEN AUTOMOBILE

Cleve family of Sweetgrass County learned about their 1905 Franklin touring car. “The door would occasionally jiggle open, the middle seat collapse, and the hapless [unfortunate] occupant would be dropped into the dust,” grandson Paul Van Cleve wrote later.

Most early cars did not have enough power to go uphill very fast—or at all. Drivers of some early Model Ts had to go uphill backward so the gas could flow downhill into the **carburetor** (part of an engine). If they pointed the car uphill, the engine would stop.

There was no driver’s education. People just climbed in behind the steering wheel (or steering lever), read the instruction sheet that came with the car, and took off. They learned along the way and hoped for the best. Sometimes they forgot basic principles of driving. One railroad engineer was so accustomed to riding trains on the railroad tracks that he sometimes forgot he had to steer a car around the corners.

Sharing the Road

For several years autos, streetcars, and horses shared the roadways and city streets of Montana. Cars zipped down streets, spooking horses

FIGURE 17.4: As you might guess from his painting *The Old Story*, artist Charles M. Russell disliked cars. He was not alone. It took horses—and many people—a little while to get used to loud, fast-moving automobiles zipping down country roads.



and sending pedestrians running for the sidewalk. (Cities did not use traffic lights until the 1920s.) Farmers complained about drivers speeding around the countryside scaring horses—and often needing to get hauled back home by a horse team when the engine quit. In March 1909 the editor of the *Great Falls Tribune* quoted a popular feeling that “every right-minded man wishes to kill an automobilist.”

At first automobiles were playthings for the rich. They were fun to drive, but not dependable enough to use for serious business. But motorized vehicles soon began to prove their usefulness. Carriage companies offered motorized transportation between railroad lines. In 1905 a business in Choteau purchased a six-passenger automobile and advertised daily rides to the neighboring town of Collins. A stagecoach company advertised “Locomobile” rides from Great Falls to Lewistown—then 110 miles—in *only eight hours*.

By 1913 there were so many automobiles on the road that the state began registering and taxing them. By 1915 Montana had more than 20,000 cars, trucks, and motorcycles. One of every 25 Montanans owned a car.

Automobiles Created a Social Revolution

It did not take long for Montanans to fall in love with the automobile. Imagine the freedom they found! Suddenly, people could go almost anywhere they wanted whenever they chose. By the mid-1920s most middle-class families had a car. Townspeople motored around the countryside; farm families took more trips to town.

“Because of the strong language used by fathers when cranking their cars, mothers would lure the younger children away from the scene. But it seemed necessary and proper for me, the oldest son, to stay and help, thereby adding some choice new words to my vocabulary.”

—TONY DALICH OF GREAT FALLS, REMEMBERING HIS FAMILY’S MODEL T

Early Road Rage

Dear Editor,

I was hauling a load of potatoes to Great Falls last week and meeting an automobile close to Vaughn on a grade. My team swung around to get away from the machine and in trying to catch the leaders I was knocked down and the whole outfit of horses passed over me, upsetting the two loads on top of me. It was no fault of the auto owner that I wasn't killed . . .

I think I voice the sentiments of everybody when I state that if auto owners persist in driving their machines at the speed they have been doing . . . everybody will carry a shotgun or rifle.

—H. J. RIEBELING, *GREAT FALLS TRIBUNE*, APRIL 25, 1908

FIGURE 17.5: Farmers who did not have cars still had plenty of horsepower. When automobiles ran off the road, got stuck, or had trouble fording a river, they relied on nearby farmers—and their horses—to save the day.





FIGURE 17.6: To some homesteaders a car was more important than what kind of house they lived in. This homesteading couple could always look forward to a bigger house in a few years—but getting around the countryside was a daily necessity.

FIGURE 17.7: With a gas-powered tractor like this one, pictured in 1939, a farmer could pull heavy equipment, haul hay out to the cattle in less time, and work more land than he could with horses.



Automobiles liberated women from the confines of the home. Women leapt into cars and found freedom and independence of movement that they had not known before. Cars also changed how people spent their money. Many young people got after-school jobs, and women went to work, just to pay the expenses of owning a car. With money in their pockets and a car in their garage, they shopped more often, went more places, and visited restaurants and coffee shops more.

Gas-powered Vehicles Changed Rural Life

Motorized travel changed life on farms and ranches, where long distances often separated people from their neighbors. Farmers could drive their goods to the railhead much faster than before. They could run errands in town, go to church, or visit friends and still be home in time to do their chores.

Rural women no longer suffered from isolation as they had before 1900. They went to town more often or hopped in the car to visit friends. More women earned extra cash by selling products door-to-door. Or they drove their eggs into town each morning to sell. Gas-powered vehicles also brought salesmen and book wagons right to the farmer's doorstep.

During the Great Depression, some Montanans with automobiles ran **bootleg** (illegal) liquor from the Canadian border to underground saloons. Since alcohol was illegal at the time, all bootleg activity paid in

cash. Some of Montana's bootleggers bought food, clothes, medicine, and hospital equipment for their economically troubled communities with the cash they earned.

Gas tractors, trucks, and harvesting equipment changed farming life. They gave farmers the extra horsepower they needed to work more land and produce more crops. Unlike horses, machines could work long days in heat or cold, day after day. The farm truck moved in beside the horse as a farmer's best friend and most important tool.

Rural children could stay on the farm and go to school

in town. Before cars, many rural students had to move into town for the school year. Rural children also learned to drive gas-powered farm vehicles and could help more on the farm.

Automobiles greatly improved rural health care. Doctors could rush to emergencies in rural areas more quickly than before. Motorized ambulances could carry patients to hospitals. Victims of serious injury could get to major hospitals more quickly, often in time to prevent infection or **gangrene** (tissue decay). Because of motorized ambulances, people suffered fewer amputations.

Autos Changed Life in Town, Too

Cars sped up the pace of town life. People could zip to appointments in cars. They crammed more activities into a day—and got to them without stopping to chat.

This was the age of machinery (see Chapter 15). People were excited about all the ways machines could make work—like getting around—easier and more efficient. Autos helped people get more done so they could have more time for leisure and recreation.

Just as railroads changed the layout of towns in the 1880s (see Chapter 14), automobiles changed towns, too. Instead of living near their work, people could live farther away and drive to work. Towns spread out. They built more streets—then later paved them and added curbs and sidewalks.

As the number of cars increased, new businesses appeared that catered to customers in cars. People built drive-in movies, drive-in restaurants, tourist camps, and motels.

Autos gave people freedom to shop at better stores farther away instead of buying everything from the closest store. Small-town shops struggled to compete with stores in bigger towns. They had to offer better, cheaper products to survive. When paved roads made travel even faster, small towns on the outskirts of cities struggled to stay alive.

FIGURES 17.8 and 17.9: Cars changed the shape of towns. These Butte miners' homes (top) were built before cars. They nestle close to the mines so the miners could walk to work. When the Arro Oil Refinery (bottom) opened near Lewistown in 1921, workers lived in town and drove to work down company-built roads to a large parking lot beside the refinery building.



“It was when the cars came that people became wild and now no one recognizes their relatives. They just drive past their relative’s place. When we used to travel by wagons, we would stop along the way with our relatives and visit for several days or overnight. But this is all gone now.”

—BELLE HIGHWALKING, A NORTHERN CHEYENNE WOMAN, QUOTED IN 1979

Trucks Brought the World to Our Doors

Trucks revolutionized modern business. In the early 1900s General Motors advertised, “Horses drop dead in the heat, while trucks keep working.” Trucks could transfer goods to and from the railroad station

faster than horse wagons—and were cheaper to maintain. Trucks could carry heavier loads, could travel farther in a day, and could even drive after dark with headlights.

Motorized trucks changed the way Montanans ate. Railroads carried some hardy foods like apples and beef long distances, but in the early 1900s most food hit the serving plate within a few miles of its source. Trucks allowed food producers to ship fresh meats, vegetables, fruits, and dairy products much more quickly. Enclosed truck bodies protected food better than open wagons covered by tarps. And trucks also did not draw flies, as horses did.

Autos Changed Life for Teenagers

As society became more mobile, family ties began to loosen. Family members began spending more time visiting friends away from home. Teenagers began spending more time with one another and less time with their families.

The automobile gave teenagers two things they never had before:

freedom and privacy. Now, instead of stealing glances at community gatherings or family picnics, teens could go on dates together in cars, away from prying eyes. This new privacy encouraged an increase in an activity your great-grandparents called **spooning** (making out).

People traveled more **spontaneously** (without planning ahead) and made briefer visits. Instead of taking all day to get to a relative’s house and then staying several days, families would visit for an afternoon and go back home for dinner. Or they would bypass their relatives completely and just go sightseeing.

FIGURE 17.10: If you did not have a car, you wanted one. These young couples pose at a Butte auto dealership—just looking.



New Competition for Railroads

Railroads were still expanding into the West when autos appeared. At first railroad owners never dreamed that anything could top the train as a means of long-distance transportation. They expected truck deliveries to increase railroad business. Railroads shipped in road-building supplies for free. They did not view cars and trucks as competition. But as more farms and businesses purchased automobiles, and as roads and highways expanded, railroads began to lose business.

People had long objected to the high rates the railroads charged. As more businesses shipped goods by truck, and as more tourists traveled by car, spur lines and short lines lost traffic. Railroads began a long, slow decline in Montana and the rest of the nation.

One reason was that railroads had to pay the expenses of building and maintaining railways themselves. But roadways were built and maintained by county, state, and federal government and were funded by taxes. So those costs were spread around among everyone.

Automobiles in Indian Country

American Indians welcomed autos into their lives just like everyone else. In a story called “Grandfather and the Popping Machine,” published by the Indian Culture Series, Henry Tall Bull, a Northern Cheyenne, recalled the day in the early 1900s that his grandfather brought home their first automobile.

My grandfather, old man Raven, was one of the first Cheyennes to buy a car (taomeameohestotse—that which runs by itself; pronounced dow-mee-YA-meo-hest-ts). He called it a popping machine because of the pop-pop-pop noise the engine made. Grandfather had always been good at handling horses, but learning to drive a car was something different. This was an adventure!

Grandfather bought his popping machine in Forsyth. The salesman at the garage cranked the engine for us. Bang! Boom! Bang! Pop-pop-pop! The car shook and the noise was awful. Grandfather held tightly to the steering wheel.

“You have to watch out when you crank it to get it started,” shouted the salesman. “Sometimes it kicks.”

Grandfather nodded. “Like horse, only kick at other end,” he said in his broken English . . .

The salesman explained to us about the foot pedals and how to shift gears and where the horn button was located. “Now,” he said, “if you’ll wait a minute I’ll get my tools and fix the brakes.”

Grandfather did what the salesman told him to do. Maybe his foot slipped off the clutch pedal, or maybe he was just anxious to go. The engine roared, and the car jerked and bucked, and suddenly



FIGURE 17.11: Automobiles quickly became popular on Indian reservations. Here Fred and Mae Last Bull, of Busby, pose beside a vehicle on the Northern Cheyenne Reservation.

we were moving! I heard a shout and looked back. The salesman was running after us, waving his tools and yelling something, but I couldn't hear what he was trying to tell us because of all the noise . . .

We made a left turn and came to the railroad tracks. Just ahead, a big steam locomotive was coming down the track. Grandfather blew the horn and the engineer blew his whistle. The locomotive was picking up speed and getting closer. Grandfather decided that he had better stop, so he hit the brake pedal. Nothing happened! . . . Now we knew why the salesman had run after us. The brakes

didn't work! . . . Very slowly I opened my eyes and saw that, somehow, we had made it across the tracks. Behind us, the locomotive thundered past . . .

Then I looked at Grandfather, sitting tall and straight behind the wheel, his braids moving in the wind. He was steering straight down the road. His eyes twinkled with pleasure. He was getting used to driving his popping machine. Somehow I wasn't so afraid any more . . . When the road flattened out, Grandfather sang his wolf song. This was the same song he had sung as a young warrior when he returned to camp with horses taken from the enemy."

Fast Cars Demand Good Roads

Montana—like most of the West—was totally unprepared for the arrival of the automobile. Most of Montana's roads in 1900 were just horse trails or wagon ruts worn into the earth by repeated use. When it rained, cars would sink deep in the mud. In heavy snow, when people simply converted wagons into sleighs, automobiles were practically useless. (No one even plowed roads in Montana until the 1930s.) Spring runoff washed out stream crossings. Snow and floods left many farms and whole towns isolated for weeks at a time.

Even in good weather, heavy trucks and cars carved the dirt roads into deep ruts. Wagons move because horses pull them, but autos move by **traction** (friction between the tire and the road), which tore up the land much more than wagons did. Autos could not navigate the steep grades that horse carriages could.

Bridges built for carriages collapsed under the weight of the new vehicles. Most early bridges were built by the locals who used them. When one wore out or collapsed, people often had to ford streams until the county could build a new one.

Automobiles arrived at about the same time that thousands of homesteaders began flocking into Montana. As the population soared, people put increasing pressure on the rickety bridges, privately owned ferries, and hand-built wagon roads.

“Good roads will increase health, happiness, education, religion and morality. Good roads will decrease profanity, discouragement, back taxes, sheriff sales, sour grapes, and grouches.”

—MEAGHER COUNTY REPUBLICAN (NEWSPAPER OF WHITE SULPHUR SPRINGS) JULY 19, 1912

The Good Roads Movement and the Yellowstone Trail

Bicyclists—not auto drivers—first pushed for hard-surfaced roads in America. In the 1880s bicyclists began the Good Roads Movement, a campaign to encourage people to build high-quality roads between cities. Auto drivers joined the movement after 1900. They pressured Congress to provide long-distance roads.

At first the government saw no need to build any other cross-country roads besides railroads. Good Roads groups then convinced the railroad owners that faster roads would help farmers get products

FIGURE 17.12: Does this look like a highway to you? This 1922 photo shows a car swimming through mud on the Great Falls–Havre Road—now U.S. Highway 87.





FIGURE 17.13: Businessmen and automobile enthusiasts formed “Good Roads Associations” to lobby (try to influence) the state and federal government to grade and pave highways. These name tags were distributed at the Great Falls Good Roads conference in 1914.

“The roads of Montana are, I believe, the poorest of any state in the Union. Even the glorious scenery of the Rockies can’t entirely make up for the ruts, chug-holes, mud and detours—to say nothing of broken springs or stone-bruised tires.”

—HOFFMAN BIRNEY, *ROADS TO ROAM* (1930)

to and from the railheads. When railroad companies joined the fight to build better roads, Congress listened.

In 1912 a Good Roads group in South Dakota launched an idea: to get cities and counties across America’s northern tier to build a network of cross-country roads from Plymouth Rock, Massachusetts, to Puget Sound in Washington. They called it the Yellowstone Trail because it dipped into Yellowstone National Park. Excitement about the Yellowstone Trail drew many new tourists into Montana and the Northwest, and the route set an example for cross-country roads. The stretch between Butte and Anaconda became the first paved highway in Montana.

Building Roads and Bridges

In 1911 four teenage boys drove a car called a Moline Dreadnought from Illinois to Red Lodge. At first they drove down wagon roads. Where the road disappeared—somewhere in North Dakota—they followed cow trails across the grassland and crossed rivers on railroad bridges.

After 13 days they arrived in Red Lodge to throngs of curious welcomers. One of the boys, Milford McClelland, remembered an old-timer saying to him, “Well, there won’t be very many folks ever make it out here like you boys. They just won’t make that trip out this way by no automobile, you betcha on that.”

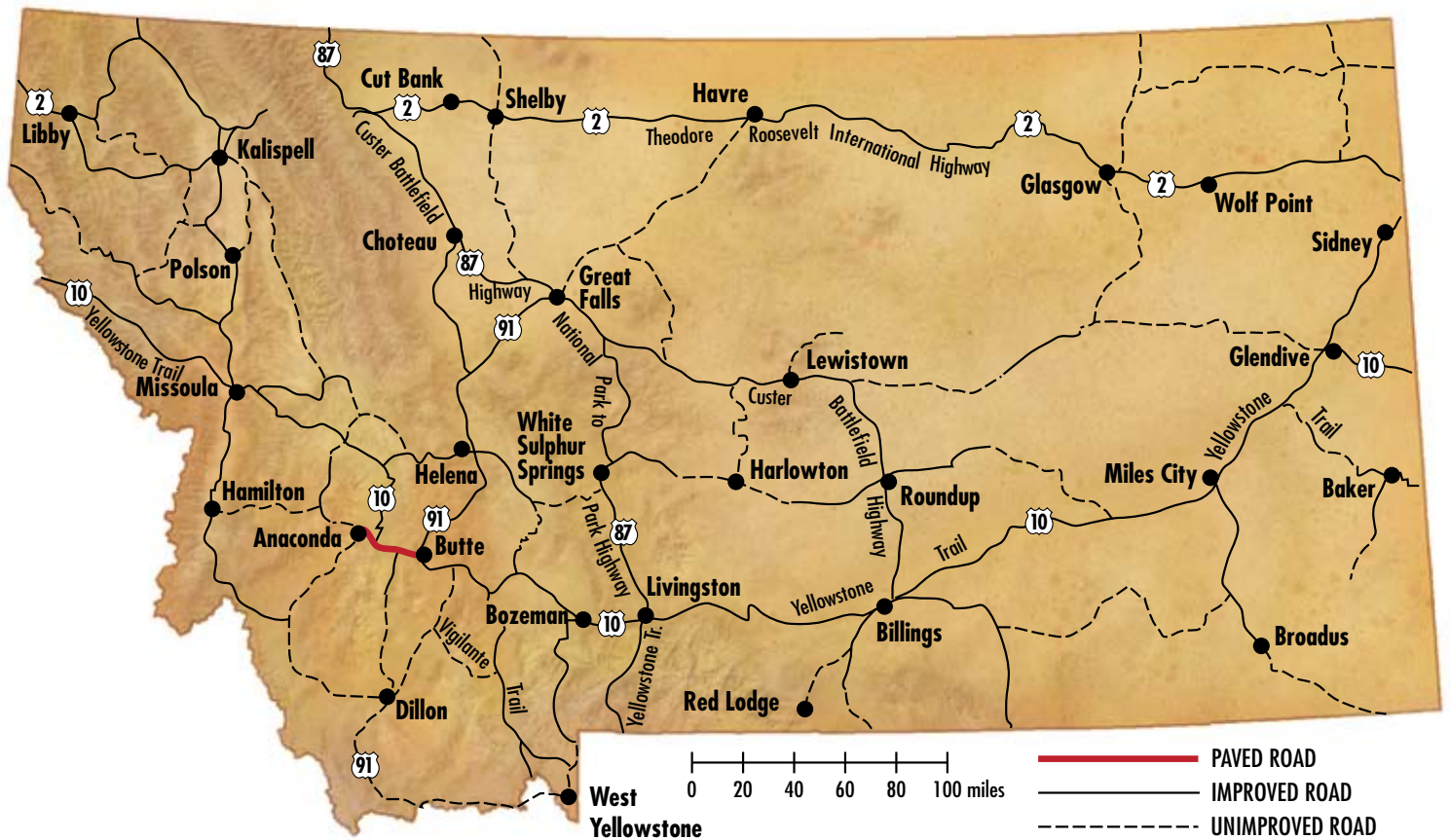
But he was wrong. Just two years later Montana established a State Highway Commission to organize road-building projects across the state. At that time counties built and improved roads using local tax money. Landowners could work off

the road tax by helping build roads themselves, which meant that most roads were built by untrained labor.

But the new autos required more than wagon roads. Curves had to be straightened to accommodate faster traffic. Switchbacks up mountainsides had to be **graded** (leveled to a manageable slope for cars). The State Highway Commission made sure that professionals engineered the new roads and bridges to handle traffic from trucks and automobiles.

Road building started slowly in Montana. Drought and economic depression struck in 1918, so counties had little money for road building. By the end of the 1920s, Montana still had some of the worst roads in America.

In the 1930s the whole nation plunged into the Great Depression, the worst economic crisis in U.S. history (see Chapter 18). The federal government funded programs in every state to give men paying jobs so they could feed their families. Many of these jobs employed men to



Basic, Improved, and Paved Roads, as of 1926

build roads and bridges. They also built roadside parks and picnic areas where motorists could rest and enjoy the landscape.

In 1928 only about 50 miles of Montana highways were paved. By the end of the 1930s, Montana had 7,200 miles of paved roads and 1,360 new, sturdy bridges to accommodate motorized traffic.

FIGURE 17.14: Of all the roads in Montana in 1926, only one stretch of highway was paved—between Butte and Anaconda. “Improved roads” had been graded, but not necessarily covered with gravel.

Automobiles Created New Industries

Like every transportation revolution, automobiles created new industries. Automobile owners needed gas and oil, tires, new car parts, and mechanics to fix their cars. And once on the road, they needed food, road information, and places to stay. Most of all, they needed places to go.

Tourism: Driving Around for Fun

In the affordable automobile, people could travel just for fun. Suddenly people wanted to see everything: Yellowstone National Park, Glacier National Park, the mountains, the forests, and tourist attractions near and far. Kids and parents piled into the family car and went camping.

A new kind of hotel appeared: the motor hotel, or motel. These do-it-yourself inns offered few of the services and luxuries of city hotels. They catered to the independent-minded traveler.



FIGURE 17.15: Owners of the Richfield gas station in Kalispell took great pride in their new business. Built in 1931, the gas station had stuccoed walls, stylish design, and a well-lit tower.

Full-service filling stations grew up along the roadways, where attendants pumped gas, checked the oil, fixed flats, and washed the windshields. Filling stations also provided travel tips and advertised local services to travelers. In some towns, the filling station became the spot where locals gathered to people-watch, gossip, and keep an eye on who was passing through their town.

A New Market for Montana's Oil

In 1864 a wagon train driving up the Bozeman Trail broke a wheel. A couple of the men hiked off the trail a few miles and found a pool of water covered with a thin coat of grease. These newcomers had stumbled across an oil deposit—now part of the Elk Basin oil reserve. It became one of Montana's most productive oil fields.

Crude oil is a dark, sticky substance found in certain rock formations below the earth's surface. It can be refined into kerosene, gasoline, and other liquids that make fuel.

People have used oil for thousands of years all over the world. Native people across America used it for fires, medicines, and warfare, as well as to treat frostbite, long before Europeans arrived on this continent.

As the nation **industrialized** (developed industries on a large scale) in the late 1800s, people used more oil to grease machinery and fuel engines. When automobiles came along, they created a huge new market for oil.

Through the early 1900s **wildcatters** (independent oil prospectors) scoured Montana's geological formations looking for oil. They drilled wells near Red Lodge, Kintla Lake (now in Glacier National Park), north of St. Mary Lake, and south of Dillon. Oil **derricks** (drilling rigs) appeared in eastern and central Montana, from Bell Creek (south of Broadus) to Cut Bank.

In 1922 a veteran wildcatter named Gordon Campbell sunk a well north of Shelby. His drill hit a gusher—a pool of oil and natural gas that ran all the way to the Canada border. Hundreds of wooden oil derricks popped up across a wide region that came to be called the Kevin-Sunburst oil field. Oil production became a big business in Montana.

Montana's oil fields poured oil and gas right into a ready new market. Cars, trucks, and gas-powered tractors were spreading across Montana. Then the Great Northern Railway converted some of its locomotives to burn oil instead of coal. Oil refineries sprouted up to process the crude oil into gasoline, kerosene, and engine oil to sell across Montana.

First Oil Refineries

In the summer of 1920, a rancher on the Musselshell River named John R. Hill put together some old steam tractor boilers and a few 50-gallon drums and made an oil refinery. It was a simple design, but oil experts at the time said Hill's products were "as good, if not superior, to any now offered on the market." He sold tractor fuel to his neighbors and a few tanks of gas to passing motorists.

Other companies developed rich fields of oil and natural gas, which often appear in geological seams together. Within a few years Montana had 21 oil refineries scattered from Miles City to Kalispell. These refineries processed local oil and sold mostly to Montana customers. Because of Montana's great distances and high railroad fares, oil companies did not want to have to ship their oil very far.

At first retail distributors delivered oil by horse-drawn wagons. Many farmers had their own storage tanks and gas pumps, provided by the oil companies. Later the distributors switched to delivery trucks.

Montana's oil industry boomed in the 1920s. Production increased, but demand—from all the new cars, trucks, and tractors—increased even faster. While most of the farm towns and other communities suffered under blazing drought and economic hardship, the oil-producing towns like Lewistown and Scobey prospered.

When the Great Depression came in 1929, people stopped buying as much gas. The price of oil fell 50 percent. Montana's oil producers scrambled to stay in

FIGURE 17.16: The Montana Highway Department published this brochure in 1938 promoting Montana's "high spots" (scenic highlights as well as mountaintops).

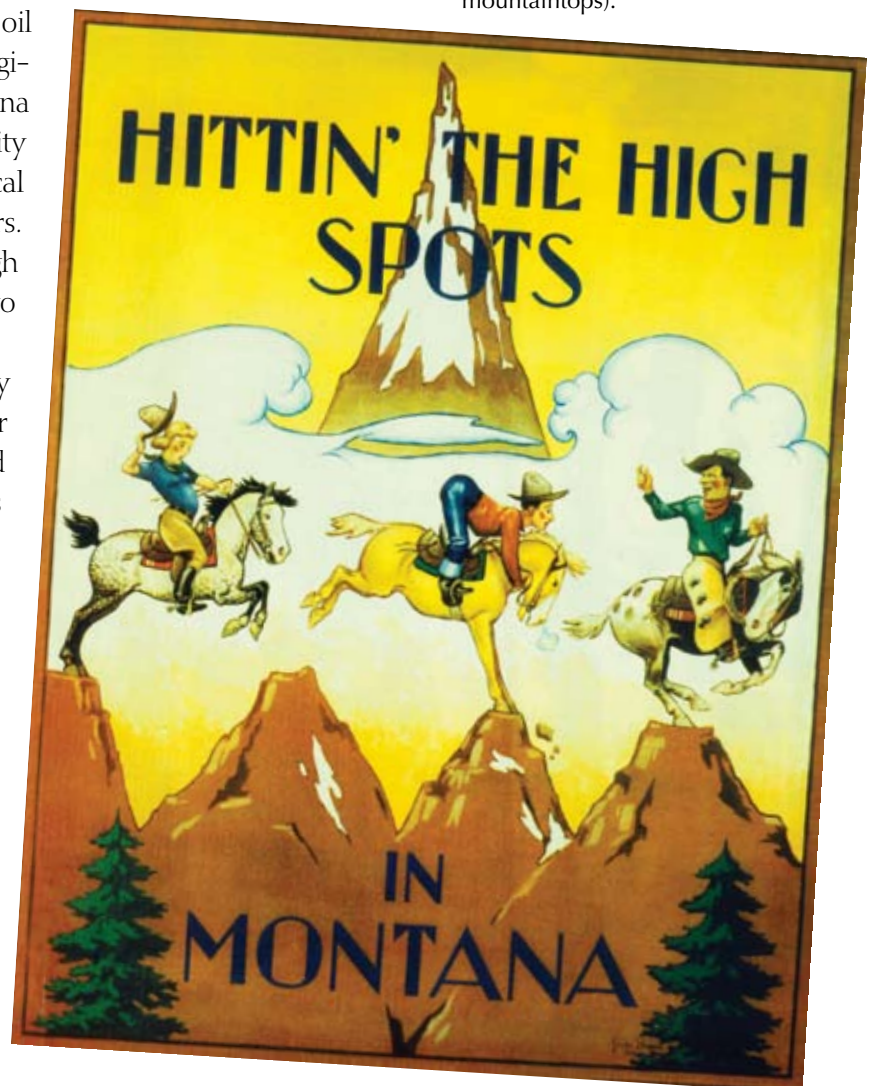
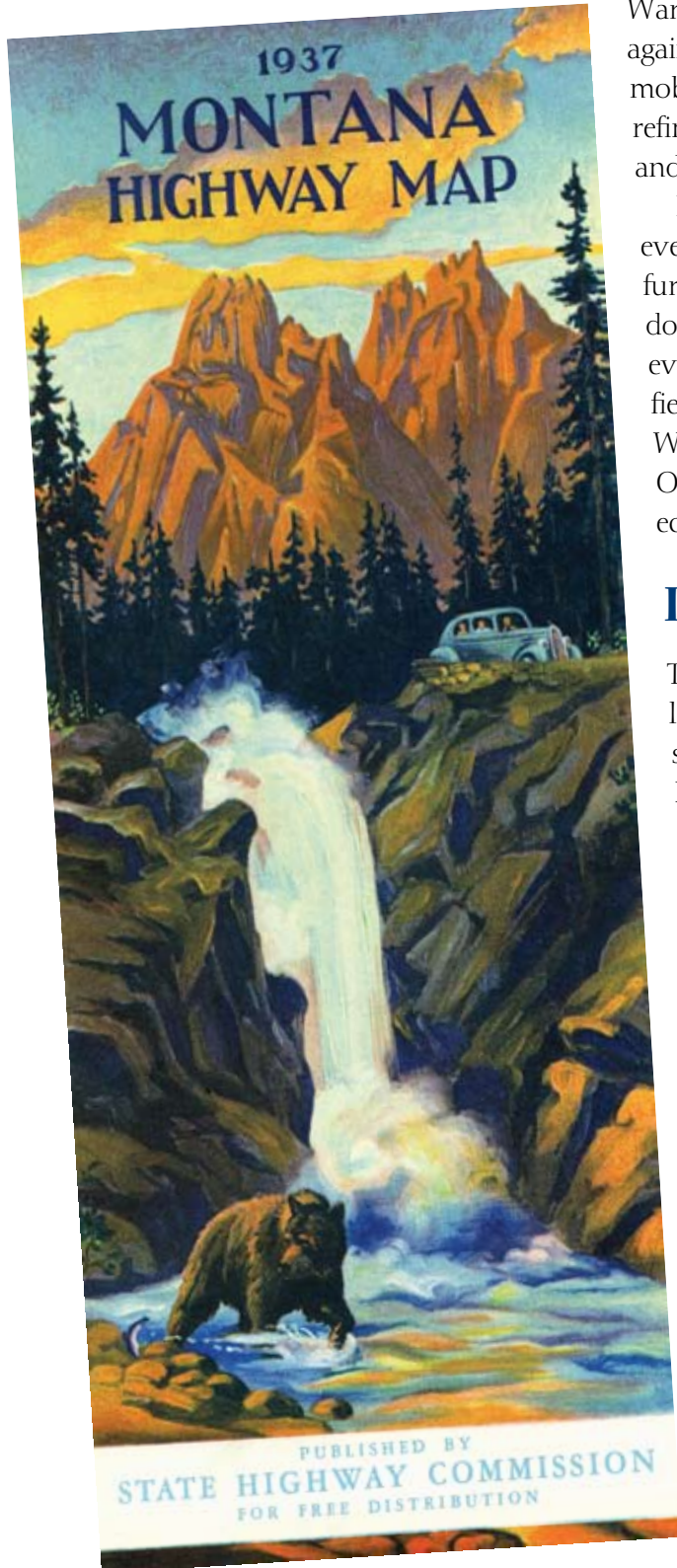


FIGURE 17.17: The automobile opened up Montana's natural beauty to tourists and locals alike. New roads threaded through scenic areas and led into national parks. Because of the automobile, Montana's landscape became one of its most valuable natural resources.



business. Refineries struggled with transportation costs and technical problems. Small, independent oil companies had the hardest time. Big corporations like the Texas Company (Texaco) had more money to spend.

But everyone in the oil business knew that the nation's appetite for oil would only increase. In 1941 the United States entered World War II (see Chapter 19), and Montana's oil industry boomed again. Suddenly the demand for oil skyrocketed as the military mobilized tanks, jeeps, ships, submarines, and airplanes. Oil refineries expanded, changing the landscape of Billings, Laurel, and Cut Bank.

By the end of World War II, oil had become a big part of everyday life in America. Cars, trucks, airplanes, oil-burning furnaces, and plants that generated electricity all used tremendous quantities. In 1949 Montana's oil production was worth even more than its copper. Oil companies developed more oil fields in Montana in the 1950s and 1960s. The biggest was the Williston Basin, in far eastern Montana, discovered in 1951. Oil production remained an important part of Montana's economy through the rest of the twentieth century.

Life on the Move

Thirty years after the first automobile arrived, Montana looked different in many ways. Towns had paved streets. Traffic lights blinked over many intersections. Blacksmith shops had become auto repair shops; **livery stables** (horse stables) had turned into auto dealerships—or had closed. And slowly, over time, horses disappeared from the city streets and roadways of Montana.

Then, in the 1960s, the federal government built a nationwide system of interstate highways—great wide ribbons of road that crisscrossed the continent. Interstate highways once again altered Montana's landscape. They made car and truck travel faster, easier, and safer (see Chapter 20).

Ever since the first Model T chugged onto the Montana landscape, automobiles have shaped life here. Every decade since, we have become more dependent on cars and trucks—and on the gas and oil it takes to run them. Montanans' love for the open road, as well as our dependence on cars for transportation, will define life here for years to come.

How It Worked

Building the Going-to-the-Sun Road

One of the most dramatic road-building projects in Montana history was construction of the Going-to-the-Sun Road, which threads 56 miles across Glacier National Park. This spectacular road climbs sheer cliffs over 6,644-foot Logan Pass to connect the east and west sides of the park.

Construction started in 1924. Engineers had to rope up and **traverse** (cross) steep snowfields just to see the site where the road would be built. Sometimes workers—who were generally not experienced mountaineers—had to climb 3,000 feet before they could even start their workday.

They used 250 tons of dynamite to blast rock away from the granite cliffs. Some of the survey and construction crews had to hang by ropes strung down cliff sides to survey a line or set dynamite.

G. LaVerno-Harrison, who worked on the road, said men had to carry 50-pound packs of dynamite down steep ladders against the cliff face. “On several occasions men stood at the top of the cliff, looked down the ladder, and turned in their resignations,” he said. Three men died during construction—two by falling and one killed by a falling rock.



FIGURE 17.18: Road workers defied their fear of heights to build the Granite Peak retaining wall. Some people call the Going-to-the-Sun Road the “crown of the continent.”



FIGURE 17.19: Snowdrifts at the 6,644-foot summit can reach 60 feet deep in winter-time. Here a tourist stands on her car to touch the sides of a snowbank near Glacier Park's Garden Wall in midsummer.

Glacier National Park held a dedication ceremony to officially open the road on July 15, 1933, and 4,000 people came. Horace Albright, the director of the National Park Service, sent a message saying, "Let there be no competition of other roads with the Going-to-the-Sun Highway. It should stand supreme and alone."

Today the Going-to-the-Sun Road is recognized as one of the nation's important historic landmarks. And it remains an engineering marvel—and sometimes a scary drive. More than 2 million people drive over it every summer.



FIGURE 17.20: Tight maneuvering room and sheer drop-offs taught construction workers to operate with precision while building the Going-to-the-Sun Road. Here workers pose with their equipment in 1932.

CHAPTER 17 REVIEW

► CHECK FOR UNDERSTANDING

1. Identify: (a) Good Roads Movement; (b) State Highway Commission
2. Define: (a) self-propelled; (b) carburetor; (c) bootleg; (d) traction; (e) graded; (f) wildcatter; (g) derrick
3. Describe the limitations that using horses for transportation put on social and business activities.
4. What were some of the problems with early cars?
5. Describe how access to automobiles changed daily life for Montanans.
6. Describe how motorized vehicles changed how work was done on farms.
7. Describe how automobiles changed the way cities were organized.
8. What was one of the major differences between financing railways and financing roadways?
9. How did the increase in automobiles affect Montana's dirt roads?
10. Why did more paved roads get built in the 1930s?
11. What were some of the new industries spawned by the increase in automobiles?
12. How did the increase in automobiles help Montana's economy?

► CRITICAL THINKING

1. Compare the advantages and disadvantages between rail and road, both for shipment of goods and for passenger travel.
2. Most people in Montana rely on cars and trucks for transportation. Do you think we are more or less dependent than people in other states? Why?
3. Look at the map on page 345. How did people get from Cutbank to Kalispell in 1926? What route do they follow today? What do you think explains the difference?
4. How did automobiles change Montana's tourism industry?

► PAST TO PRESENT

1. Given current debates about the environmental impact of cars and the United States' dependence on foreign oil, do you think we need to change the way we use automobiles? If not, why not? If so, what changes would you propose and how would you go about implementing them?

► MAKE IT LOCAL

1. Think about the roads around your town. How many are paved? Which roads are paved, and which are still dirt? Why?

► EXTENSION ACTIVITIES

1. Research the history of the automobile.
2. Research the change in automobile regulations. For decades, the government did not require safety features like seat belts. What restrictions does the government place on cars today, and what safety features are required?
3. Research the history of the Going-to-the-Sun Road, and study pictures of its construction. Imagine you have taken a job building the Going-to-the-Sun Road. Write a letter home about your experiences.
4. Imagine taking an automobile vacation in the 1920s, when Montana had almost no paved roads. Write a journal of your trip.
5. Write a story describing what a day in your life would be like without a car. How would you shop or get to school or to social or sports activities? What other types of transportation could you use? Think about the time of year you are describing and how this would affect your movements. Would you have to give up any activities?

Credits

The following abbreviations are used in the credits:

BBHC Buffalo Bill Historical Center, Cody, Wyoming
GNPA Glacier National Park Archives
LOC Library of Congress
MAC Montana Arts Council, Helena
MDEQ Montana Department of Environmental Quality, Helena
MDT Montana Department of Transportation, Helena
MFWP Montana Fish, Wildlife and Parks, Helena
MHS Montana Historical Society, Helena
MHSA Montana Historical Society Archives, Helena
MHSL Montana Historical Society Library, Helena
MHS Mus. Montana Historical Society Museum, Helena
MHS PA Montana Historical Society Photograph Archives, Helena
MSU COT Montana State University College of Technology, Billings
NMAI National Museum American Indian, Smithsonian Institution, Washington, D.C.
MSU Billings Special Collections, Montana State University Billings Library
NARA National Archives and Records Administration
NPS National Park Service
NRIS Natural Resource Information System, Montana State Library, Helena
SHPO State Historic Preservation Office, Montana Historical Society, Helena
TM Travel Montana, Helena
UM Missoula Archives & Special Collections, The University of Montana-Missoula
USDA United States Department of Agriculture
USFS United States Forest Service
WMM World Museum of Mining, Butte

Chapter 17

- FIG. 17.1** *Missed the Turn*, Max J. Woolley, MHS Mus.
- FIG. 17.2** Horse-drawn school bus, courtesy Phil Leonardi, Corvallis Community Heritage Project, MT
- FIG. 17.3** Advertisement, ca. 1915, The Luverne Automobile Company, Luverne, MN, Poster Coll., MHSL
- FIG. 17.4** *The Old Story*, 1910, C. M. Russell, watercolor, courtesy C. M. Russell Museum, Great Falls
- FIG. 17.5** Horse pulling auto, courtesy Dr. William E. Farr, Missoula
- FIG. 17.6** Homesteader, Custer County, MT, photo by John Bjornson, MHS PA
- FIG. 17.7** Farmer with John Deere tractor, Fairfield, 1939, photo by Arthur Rothstein, courtesy LOC LC-USF34-027287-D
- FIG. 17.8** Copper miner's home, Butte, 1939, photo by Arthur Rothstein, courtesy LOC LC-USF33-003097-M3
- FIG. 17.9** Arro Oil Refinery, courtesy Lewistown Public Library, MT
- FIG. 17.10** Girls and boys in automobile showroom, courtesy Dr. Mary Murphy, Bozeman
- FIG. 17.11** Man and woman standing in front of old convertible, courtesy BBHC, Thomas Marquis Collection, PN.165.1.70
- FIG. 17.12** Miles of mud, 1922, courtesy MDT
- FIG. 17.13** Good Roads ribbon, 1914, MHS Mus.
- FIG. 17.14** Basic, Improved, and Paved Roads, map by MHS, based on a map in William Wyckoff, *On the Road Again: Montana's Changing Landscape* (Seattle, 2006), p. 11
- FIG. 17.15** Art deco gas station, courtesy KCFW – Channel 9, Kalispell
- FIG. 17.16** Brochure, MHS Mus. 1986.11
- FIG. 17.17** 1937 *Montana Highway Map*, MHSL Map B-601
- FIG. 17.18** Building Granite Peak retaining wall, GNPA
- FIG. 17.19** View along the Garden Wall, GNP, photo by E. T. Scoyen, MHS PA 956-638
- FIG. 17.20** Heavy construction equipment, 1932, GNPA