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Missouri



ROADS & THEIR BUILDERS



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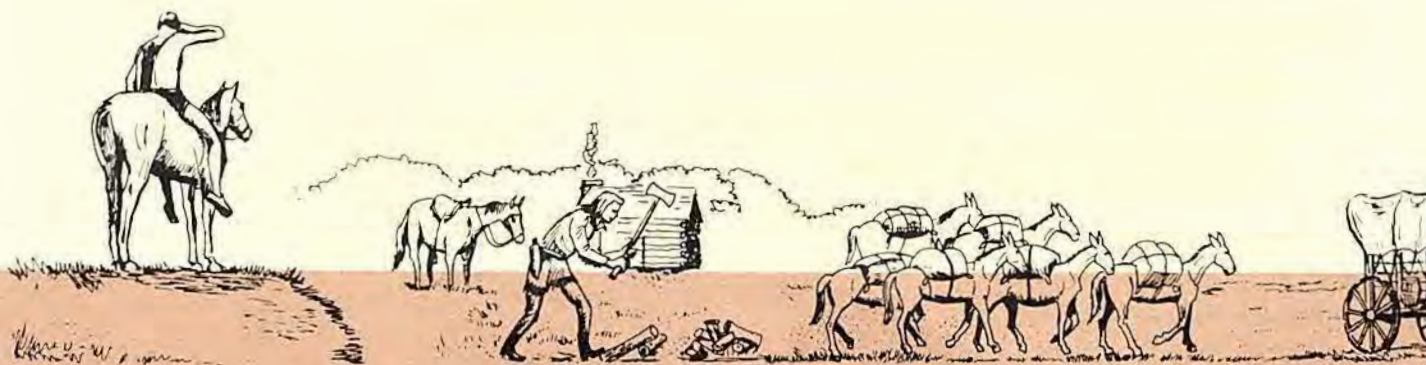
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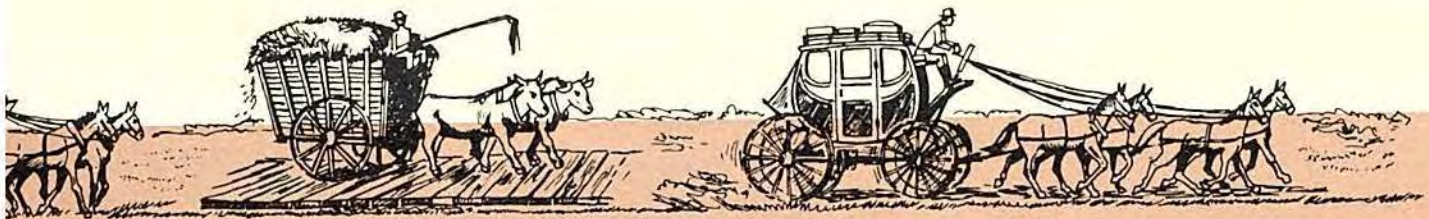
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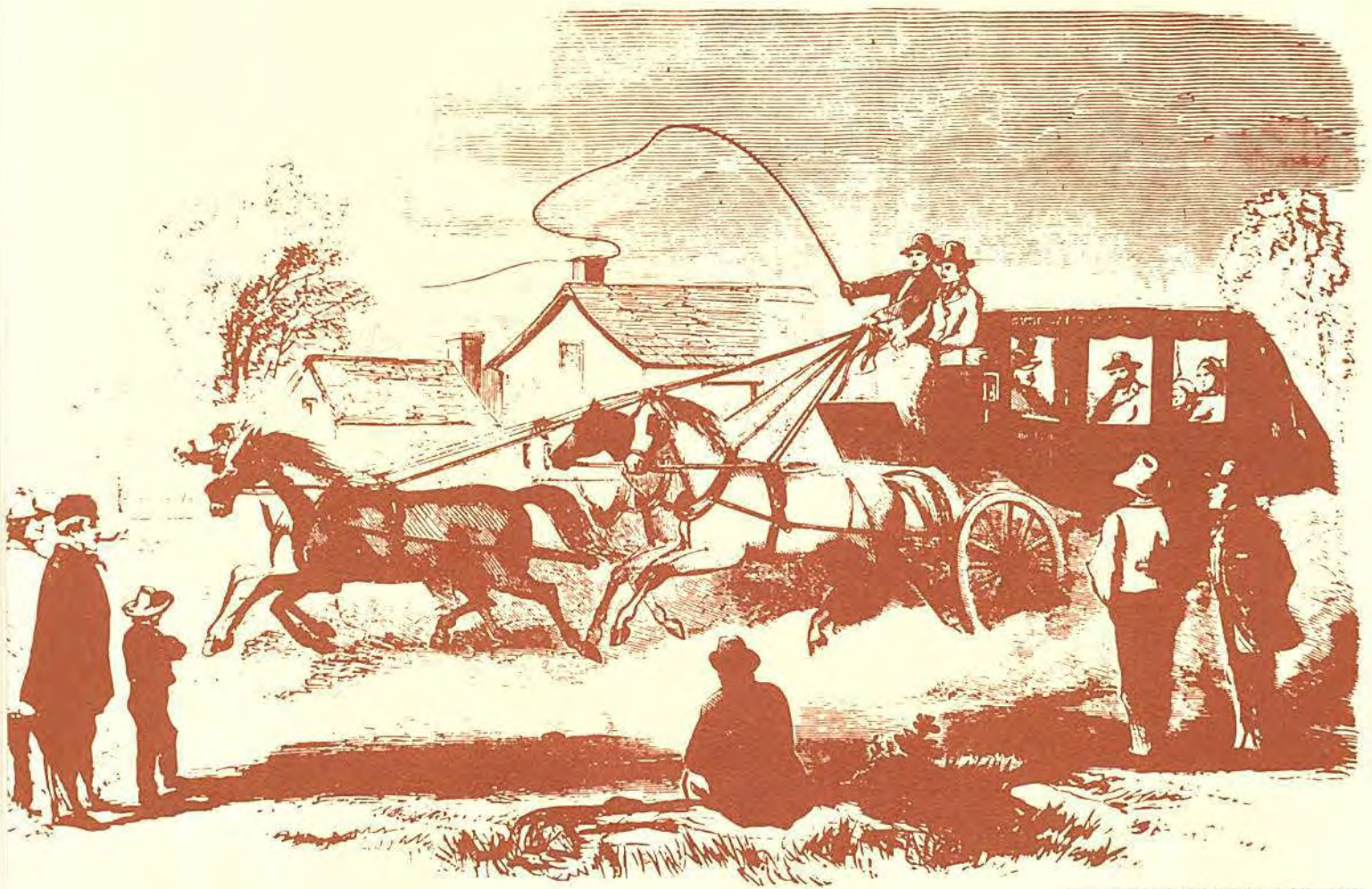


Brown Shoe Company



The First 200 Years





State Historical Society of Missouri

Butterfield's Overland Mail coach leaves Tipton for the 2,800-mile trip to San Francisco, carrying letters at twenty cents an ounce and passengers for \$100 each — in gold, please.

The first layer

"Histories," wrote Sir Francis Bacon, "make men wise."

This, of course, is true only if men pay attention to these "histories" and learn from them. Fortunately for Missourians, this pragmatic view of history has been applied to building the state's highway system.

Each lesson learned from one experience has been applied, in most instances, to the state's next stage of highway development. It has been a building on of layers, with each layer improving and strengthened by the one before it.

For this telling, we have peeled back Missouri's highway history in three arbitrary layers. This first layer, then, is the "base course." We call it "The First 200 Years."

It covers roughly the period from the early 1700's when white men started pushing into Missouri's back country, to 1900 when that newfangled contraption, the automobile, clattered loudly into the scene.

This is a thick layer — especially in time. It also is an important one because from here emerged the dim, sometimes meandering forms which were the ancestors of Missouri's highways.

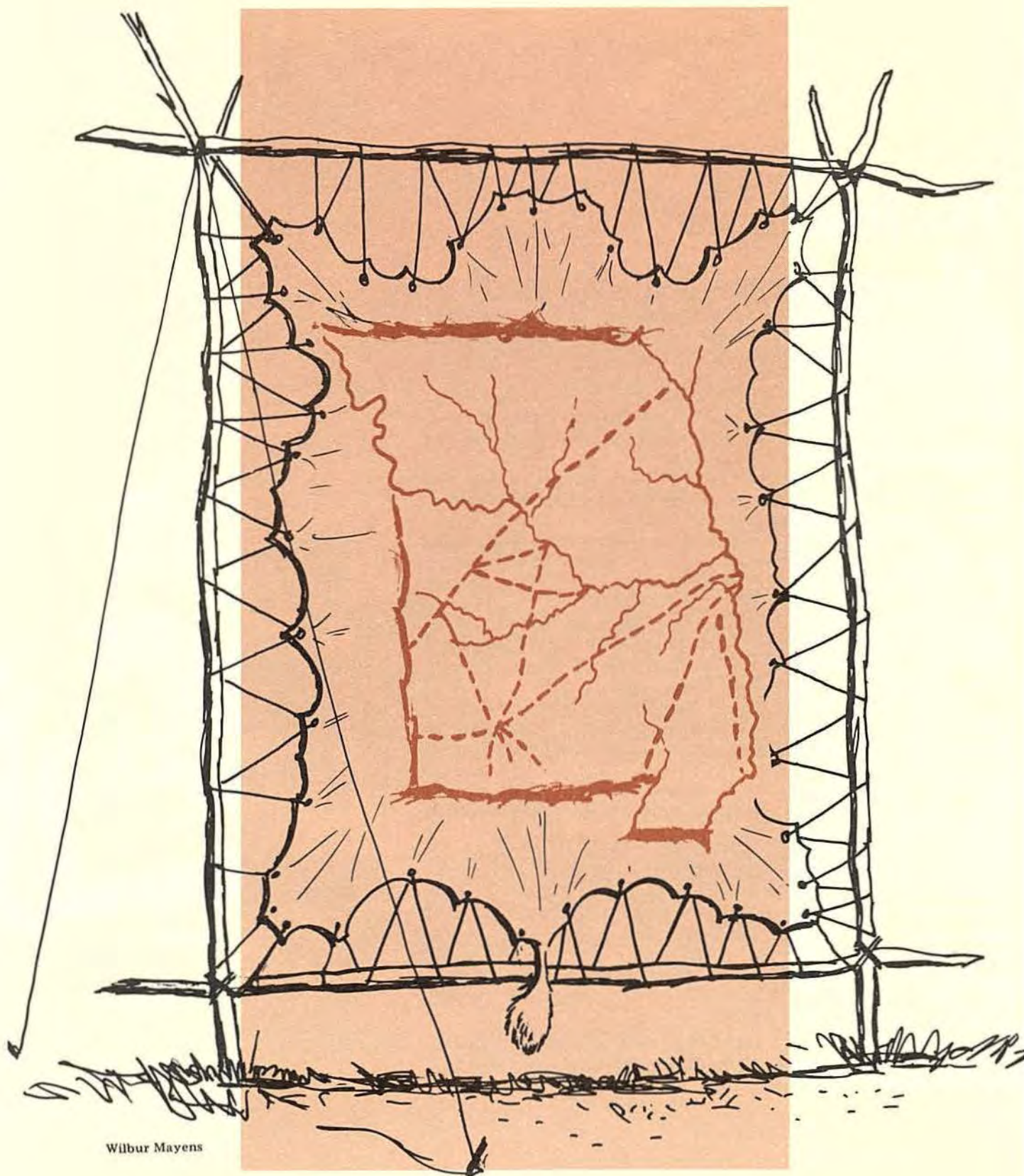
This first layer also is rich in the romance and adventure of frontier life, a hard life leavened by the spirit of people who were insistently pushing back their horizons. And roads were one of their pushing-back tools.

The second "layer" covers almost the first half of the Twentieth Century, from the fading strains of the Gay Nineties to the end of World War II.

The third one picks up the threads of history after the war as Missourians and people all over the world turned from the clearcut urgencies of battle to the perplexing problems of peace, including the massive task of updating the nation's highways. This layer carries the Missouri story through another roadbuilding era to the present.

With these layers laid on each other, we hope, if not to make men wise, at least to inform Missourians about the modern highway system they have wrought.

And we hope that it makes them proud of their accomplishments and aware of the need for their continued support for its future progress.



Wilbur Mayens



The First Highway Makers

Missouri's first "highways" were its many rivers. But the first venturesome white men, pushing back from these waterways, soon found they needed overland routes.

A ready-made system was there for them. This consisted of the ancient Indian trails, worn smooth by the red man's moccasined feet and his horses, and the natural paths, stamped through forests and across the prairies by the hooves of buffalo and deer herds and other animals.

The white man's settlement of Missouri did not get up steam until the early 1700's. But in 1542, when DeSoto recorded the first setting down of the white man's foot in this land, many of the Indian trails were there.

After marching along Crowley's Ridge in the St. Francis basin, DeSoto and his goldhunting fellow Spaniards crossed a wandering bend of the

old Mississippi river channel from what is now Scott county. From there DeSoto sent two of his men, Hernando DeSilvera and Pedro Moreno, and some helpers forty leagues north to LaSaline for salt. With this penetration of the Missouri wilderness to present Ste. Genevieve county, DeSoto left his name on one of the state's earliest known trails, a trail that has left its mark on the present highway system.

The DeSoto trail, however, was only one of many that the Indians made in Missouri. And when the white men arrived in the region to stay, these Indian trails were the only inland travel routes in Upper Louisiana west of the Mississippi.

Most of the tribes in the region came from Sioux-speaking stock. These included the Otoes, the Iowas, the Osages, Missouris, Quapaws, Kansas and others. Their chief rivals were the Sauk, Fox and Illinois tribes up in the northeast part of the state. These tribes belonged to the Algonquin family, the largest North American Indian group.

These two large groups were chronic feuders, and splinter groups also often shifted allegiances and alliances.

Although some of these tribes were fair to

CONTINUED

Nine Indian trails penetrated into almost every area of early Missouri. They included the trail from the Osage villages to the Missouri River, the hunting trail from the villages to the Verdigris and Red Rivers and its return trail to St. Louis, hunting trails from the villages to the White River region and the return trail to Boonville, the Shawnee or old "Indian Trail," the St. Louis-Natchitoches Trail, the Sacs' and Foxes' trail to the villages of the Osages and the Vincennes-Natchitoches Trail.

MAKERS



Meandering paths and trails laid the framework for highways

middling farmers, they were no stay-at-home types. The Osages, for instance, most impressed the white men. They lived mostly from hunting but also raised small crops of corn, beans and pumpkins. But that was mostly squaw work.

For the men there were the three-times-a-year hunts. In February or March the men would leave the lodges to start their spring hunts, first for bear and then for beaver. After coming back just about long enough to unpack their bags, they headed back for the summer hunt, which usually lasted from May until August.

Back to the lodges they came in time to help gather what crops there were — and to head for the hunt again in September. These fall hunts usually kept them away until late December when they straggled back home to hole up for the winter.

The Indians in Missouri used their system of trails for other purposes besides hunting. They were social animals so they liked their social intercourse. They had their tribal visits, somewhat like the white man's relatives moving in for a prolonged — perhaps uninvited — stay.

Their desire for social intercourse had other, more negative aspects, too. It broke out in many ways, from petty, thieving raids on neighboring tribes to all-out, whoop-it-up war. Again, they made trails to take care of these traveling requirements, sort of a red man's forerunner of a national defense highway system.

If they ran out of horses — and neighboring tribes could not supply them by one means or another — the tribes trailed down into the wild horse country. Both the Great and the Little Osages, for instance, rounded up their horses south of Missouri west of the Verdigris and Arkansas rivers down in Oklahoma territory.

These Osages could travel, too. They were tall,

averaging six feet or more. Audubon praised them as "well formed, athletic and robust men of noble aspect." And their runners turned in remarkable track times on their trails. In fact, it was not uncommon for the Osages to walk sixty miles a day.

With all of these Indian goings and comings Missouri was no quiet place in the early 1700's, notwithstanding the common picture of a virgin wilderness unstirred by the stealthy steps of savages. These "stealthy savages" were stealthy only when it suited their purpose. Otherwise they traveled the "highways" and they laid these out, too, to suit their purposes.

These redmen were practical people. In locating their trails they took a realistic view of the whole business. They took into account the topography of the country, usually cutting their trails along the general line of a watershed or a stream valley.

Most of the tribes, despite their goings and comings, lived in fairly permanent villages. For them, then, the hunting and trading trails were the most important, so these were usually well defined. They sometimes even specialized these routes into a primitive version of divided highways. One trail led from the village to the remote hunting grounds; another one headed to the tribe's trading post. Sometimes the two trails ran together; sometimes they were completely separated.

But the white man's coming signalled the beginning of the end of the trail for the Indians in Missouri. Slowly but inexorably, the white settlers pushed the Indians west and south out of the territory.

Caught in a crossfire of land-hungry American pioneers and English, French and Spanish dreams of empire, the Indians fought and fell back, harassed the white men, signed treaties, acquired a white man nourished taste for liquor and vainly tried to stop the westward cadence of American history.

Of them the Osages stood out, for their general sobriety and retention of their pre-white man way of life despite more than a century of association with white traders and visitors.

"You are surrounded by slaves," old Chief Has-ha-ke-da-tungar, or Big Soldier, once told a white friend. "Everything about you is in chains and you are in chains yourselves. I fear if I should change my pursuit for yours, I, too, should become a slave."

By 1836, after about a century and a quarter of use and abuse, the Indians ceded their final claims to Missouri land. But they left behind them a rich, colorful chapter in Missouri history. And a system of trails whose dim outlines still mark Missouri's highways.



Harper's Weekly

In the early 1700's plodding pack trains loaded with lead or miners' supplies made the Indian trail the first road developed by white men in the Missouri territory.



The Three-notch Road

**It played a pivotal part
in opening the southeast region
west of the Mississippi River**

The red man engineered it. The white man and his strings of pack horses made it the first honest-to-goodness road in Missouri. And lead paved it.

"Paved" is used here figuratively, of course, because the road wasn't paved in the modern sense (or any other sense, for that matter). The road was hardly a road, either, but it played a pivotal part in the opening of the southeast region west of the Mississippi.

Before 1763 France claimed this whole Louisiana territory on both sides of the Mississippi river. They had established settlements on the east bank at Kaskaskia, St. Phillips, Cahokia, Prairie du Rocher and Fort Chartres. But they had not moved west across the river despite the repeated reports since 1700 of rich mineral deposits in the region.

CONTINUED



Capitol painting by Berninghaus

The lead mines, opened by the French, continued to produce under Spanish rule. By 1795 more than 300,000 pounds of lead were shipped in a year from Ste. Genevieve.

THREE-NOTCH

Miners, lead and supplies quickly made it a road

But the Company of the West, after 1718, sent Phillip Renault from France to work the mines. Armed with three grants of land from officials at Fort Chartres, Renault crossed the river and put his men to work. One of the grants covered two leagues of ground at Mine La Motte.

By 1725 Renault had built a furnace and was gouging out fifteen hundred pounds of lead a day.

The company ran afoul of financial rocks and by 1731 the grants reverted to the French Crown and Renault headed for the Illinois country before returning to France in 1744.

A well-beaten Indian trail led from Mine La Motte to the Mississippi's west bank across from Fort Chartres. In the mines' early days the lead was hauled to the river and boated across. But Ste. Genevieve, thirty miles northeast of Mine La Motte, sprouted on the west bank near the river crossing and by 1735 it was a permanent settle-

ment. With the heavy traffic in lead, miners and their provisions moving over the trail, it quickly became a trace and a road. Three Notch Road, it was called, because the route was marked by three notches in trees along the way.

These mines helped supply the French with lead throughout their regime which ended in 1762 when France ceded the territory by a secret treaty to Spain, although the Spaniards did not take possession until 1770.

In the last quarter of the century, St. Louis started to outstrip Ste. Genevieve as the focal point on the Mississippi. But until then this first settlement in Missouri continued to be the warehouse for lead and the storehouse for miners' supplies.

And the pack trains continued to plod over the old Indian trail from the mines to the river and back again until the pendulum of history swung upriver, leaving little trace of this first road in Missouri.

The King's Highway



This ancient trail
of many languages
linked Spanish
posts together for
military safety and
commerce and trade



DeSoto and his goldhunting Spaniards left his name on an old Indian trail that became an important overland link between early settlements.

Bureau of Public Roads

In 1770 when the Spaniards took over control of Upper Louisiana on the Mississippi's west side, the country was still sparsely settled, mostly a haven for fur trappers and traders with few people looking for "settlin' down" land.

St. Louis and Ste. Genevieve were the only permanent settlements — and they hardly ranked as metropolitan areas.

Even twenty-nine years later when Charles Dehault Delassus, Spanish lieutenant-governor of Upper Louisiana, ordered the first census, Mis-

CONTINUED

KING'S HIGHWAY

*'No stump shall exceed
twelve inches in height'*

souri's total population was only 6,028. Ste. Genevieve in 1799, with a population of 945, outstripped St. Louis by 24 inhabitants. St. Charles ranked third with 875 and New Madrid was fourth with a population of 782.

At first, the Spaniards showed little desire to promote settlement but they soon changed their outlook, wanting settlers to check the English coming in from Canada. They lured settlers (like

the prestigious Boones) with liberal inducements such as tax-free land, including mineral lands. And they encouraged miners to settle the country and work the mines.

These policies worked. By 1804 more than half of the population of the territory lived south of the St. Louis district. New Madrid, founded by Colonel George Morgan, became a permanent settlement about 1785 and a Spanish post in 1789. And in 1793 Louis Lorimer's settlement at Cape Girardeau was made an independent Spanish post.

These isolated posts, however, could not guarantee military safety nor facilitate commerce and trade in the country. Something was needed to tie these posts together and to link outlying settlements with them.

By 1776 the Spanish commandant at St. Louis wanted a land connection between the trading posts of St. Louis and Ste. Genevieve. To encourage "regular intercourse" between these two posts, he wanted a ferry over the Meramec river. Jean Baptiste Gomache, in return for a grant of land, started the ferry near the mouth of the Meramec about seventeen miles south of St. Louis. It remained in operation for the rest of the century.

Then, at the other end of the string of Spanish posts, a trace was in the making. Soon after New Madrid was established a trace was marked out leading north toward St. Louis. It generally followed the old Indian trail which DeSoto had traveled 200 years earlier. And it must not have been much improved over DeSoto's time because when Moses Austin traveled from St. Louis to Ste. Genevieve in 1797 to check out mining prospects he crossed the Mississippi river and journeyed down the east side.

But the swelling tide of settlement was making roads an inevitable problem of the government. In 1806, only three years after the United States bought the Louisiana Territory from Napoleon for \$15 million, the first territorial road law was passed. This law provided for the establishment of district roads, with each district empowered to have roads surveyed, marked out, made and repaired by order of the district's court of quarter sessions.

Two years later, on June 30, 1808, Territorial Governor Meriwether Lewis signed a law providing for the first specific road in the territory. This road, or "roads," as the law read, was to be laid out "from the town of St. Louis to the town of Ste. Genevieve, from thence to the town of Cape Girardeau, and thence to the town of New Madrid."



Missouri State Museum

White men made a trail a trace with travel on foot or horseback and a road when they started rolling their wheels over it.

In November, 1808 another act provided for the opening of the roads as one road from St. Louis to New Madrid. The Road was to pass through four districts and each district was to pay for its part.

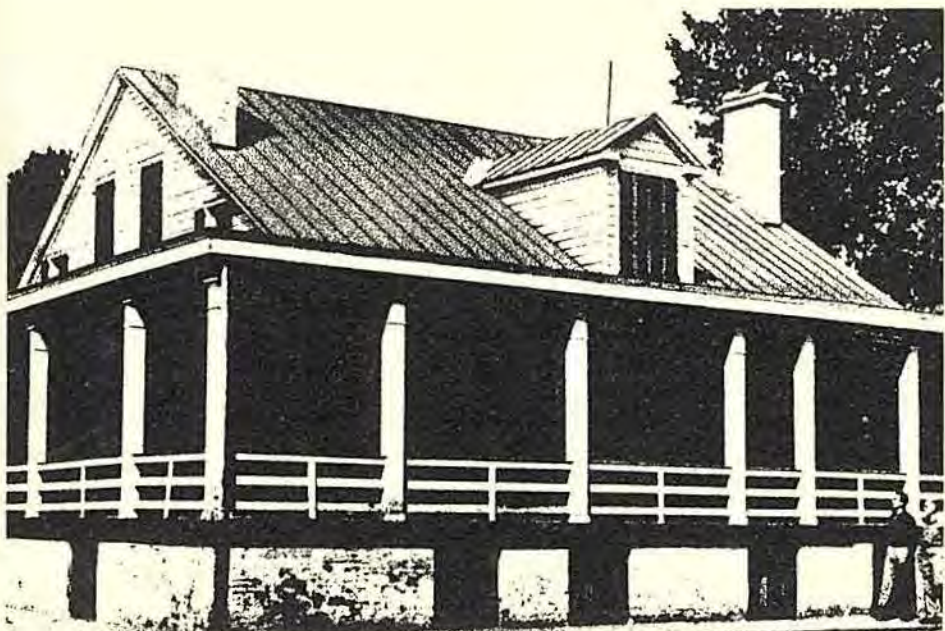
Commissioners appointed by the governor laid out the route along the general line of the old Spanish trace, which had mainly followed the ancient Indian trail through the area. Plat and field notes made in 1808 for the Cape Girardeau district stated, "This road follows the Shawanae (sic) trail the whole distance without any deviation from Cape Girardeau to the Indian town."

In January, 1814 the General Assembly of Missouri Territory passed another law declaring all

such limbs of trees as may incommode horsemen or carriages, shall be cut away and no stump shall exceed twelve inches in height."

So the old Indian trail grew up, pushed by the white man's military and economic needs. In Ste. Genevieve and St. Louis, where the French influence was strong, the road was called "La Rue Royale." In New Madrid, it was "El Camino Real." In English these became "The Royal Road," "The King's Trace," or "The King's Highway."

Despite its grandiose names, the road was a challenge to all who traveled it. Marked by stumps and mudholes, it was often impassable to wagons and carriages and was hardly less arduous than a trip upstream by flatboat. Although called a road,



Valle House, built in 1772, sat by the side of the old King's Highway in Ste. Genevieve. It was built by Don Francesco Valle II, the fourth Civil and Military Commandant of Ste. Genevieve from 1796 to 1804.

Division of Commerce
and Industrial Development

county roads "laid out by order of court and according to law" to be public roads. And jurisdiction was switched from the district's court of quarter sessions to the county's court of common pleas.

One section of this law describes the standards for the roads:

"All public roads laid out as now in use, or which shall hereafter be laid out, shall be cleared of all trees and brush at least twenty feet wide, and

it was actually a wide pathway cleared — to some degree — of brush and timber. Sometimes travelers made the mudholes passable by filling them with rocks or logs. More often a new path was chopped out of the woods, or the trip was cancelled until the holes dried up.

But the path-road filled the white settlers' needs — for that moment in Missouri history. It would change more — as the needs of the people who traveled it changed.



Missouri State Museum

By 1820 settlers were pushing into the wooded hills of southwestern Missouri, assuring the white man's use of that end of the Osages' ancient trail from the Verdigris to St. Louis.

This impressive tribe developed most main trails in South Missouri but one was "mainer" than all

The Trail of the Osages

The sober, impressive Osages controlled most of Missouri south of the Missouri river so they developed most of the main trails in the region. And because they would rather travel a few miles farther to use a beaten path, they made fewer trails but better defined ones.

The first French explorers in Missouri territory found the Osages living near the mouth of the Osage river. But sometime before 1718 one group moved upriver to near the Osage river headwaters. These were the Great Osages, or Ps-he'tsi, the "campers on the mountains." The rest of the tribe, along with their cousins, moved westward up the Missouri river and set up a village in the Missouri river bottoms in what is now Saline county. These were the Little Osage, or U-tsehta, "campers in the lowlands."

Two Great Osage villages lay on Osage headwaters in present Bates and Vernon counties. From here the Osages walked or rode out along three well-worn trails. One headed northwest toward the Missouri river; its destination apparently switched with the westward tide of white settlement — and its chance for trading. As the Boonslick country opened up, the trail's northern terminus probably was Franklin. Lewis and Clark on their way west mentioned that the Osages crossed the river at Arrow Rock.

One hunting trail led from the Great Osage Villages southeast toward hunting grounds on White river. Here they camped, surrounded by springs, in the vicinity of present Springfield. From there branch trails led off down the White river feeder streams. In 1818 Henry Schoolcraft in his

famous journal referred to the Osage trail down Swan creek as a "horsepath beaten by the Osages in their hunting expeditions along the White River."

From these White river hunts the Osages retraced their trail to the Ozark plateau where the trails branched toward a market. In early days this market was St. Louis so they used the Verdigris-St. Louis trail. Later the market probably was Franklin or Boonville.

Another trail — also for hunting — led southwest, mostly in present Kansas and Oklahoma, to hunting grounds on the Verdigris, the Arkansas, the Red and the Canadian rivers.

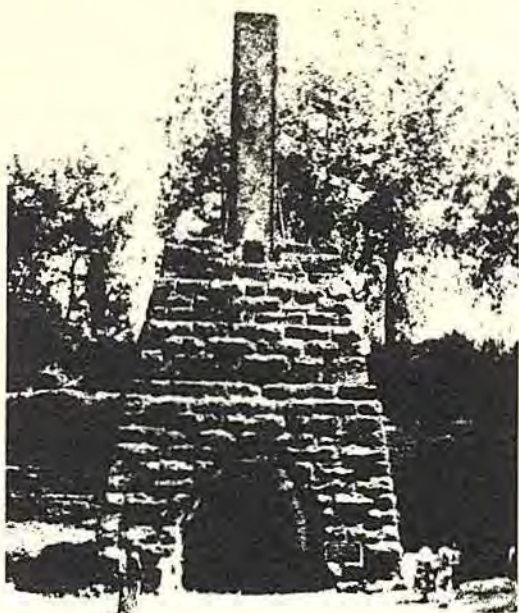
Their return trail was the longest and best known of the Osage trails. From their hunting grounds, the Osages headed northeast for St. Louis to trade with the white man. The route roughly followed the highlands between the Missouri and Mississippi rivers, crossing the Gasconade river on its headwaters near present Waynesville in Pulaski county.

One historian reported the trail was "scarcely obstructed by hills," which leaves little doubt as to its general location because no other routes through this country could match that description.

All of the Osages probably used this trail in early trading at St. Louis. Later the Arkansas Osages made good use of it in their trade agreement with the Chouteau family of St. Louis. But it remained primarily an Indian trail until the early nineteenth century because the white settlers had not pushed extensively into the area south of the

CONTINUED

The Southwest country was 'gittin' on



Division of Commerce and Industrial Development

The Meramec Iron Works, established in 1826, used the Osage Trail for hauling in supplies and freighting the smelted iron out.

Missouri river and west of the Mississippi.

In the early 1800's, however, they started pushing up the valleys of the Meramec, the Gasconade and the Osage rivers, lured by the rumors of rich minerals, furs, the valley land and timber along the Missouri, the Gasconade and Osage rivers. Discovery of iron ore along the Meramec near present St. James anchored the white man's use of the center of this old Indian trail.

About 1828 Thomas James, along with Samuel Massey and more than one hundred laborers, started erecting the Meramec Iron Works. By 1837 wagonloads of iron were rolling to many parts of the state, with much of it freighted overland to St. Louis. And supplies for the mines came back the same way.

Six years before that, in 1831, two postoffices were operating in the area — one at Piney, about ten miles southwest of present Rolla, and one at Meramec. So the white man's needs were solidify-

ing his use of the old Indian trail and making it a road.

The other end of the old trail was going through the same evolution as settlers penetrated into southwest Missouri along the White River. Legal complications, however, slowed the development of the area.

The U.S. Government had granted reservations in the area to the Delawares in 1818 and to the Kickapoos in 1819. They started moving in for permanent occupancy in about 1822 — and, of course, found themselves in a hassle with the white settlers.

The government finally upheld the Indians' rights and the white settlers moved out, some to the already established settlements on the Meramec and Gasconade headwaters. But for the Kickapoos and Delawares the victory was only a delaying action. In 1832 they ceded their claims to the United States and many of the early white settlers returned to make their homes there.

These settlers, like others elsewhere in Missouri, came from everywhere. As the frontier advanced they moved with it, like old Squire Ezekiel Hagan. He had moved from Virginia to western Carolina and then to Tennessee, and when land hunters came in with good news from Arkansas and Missouri, he planned to "git on."

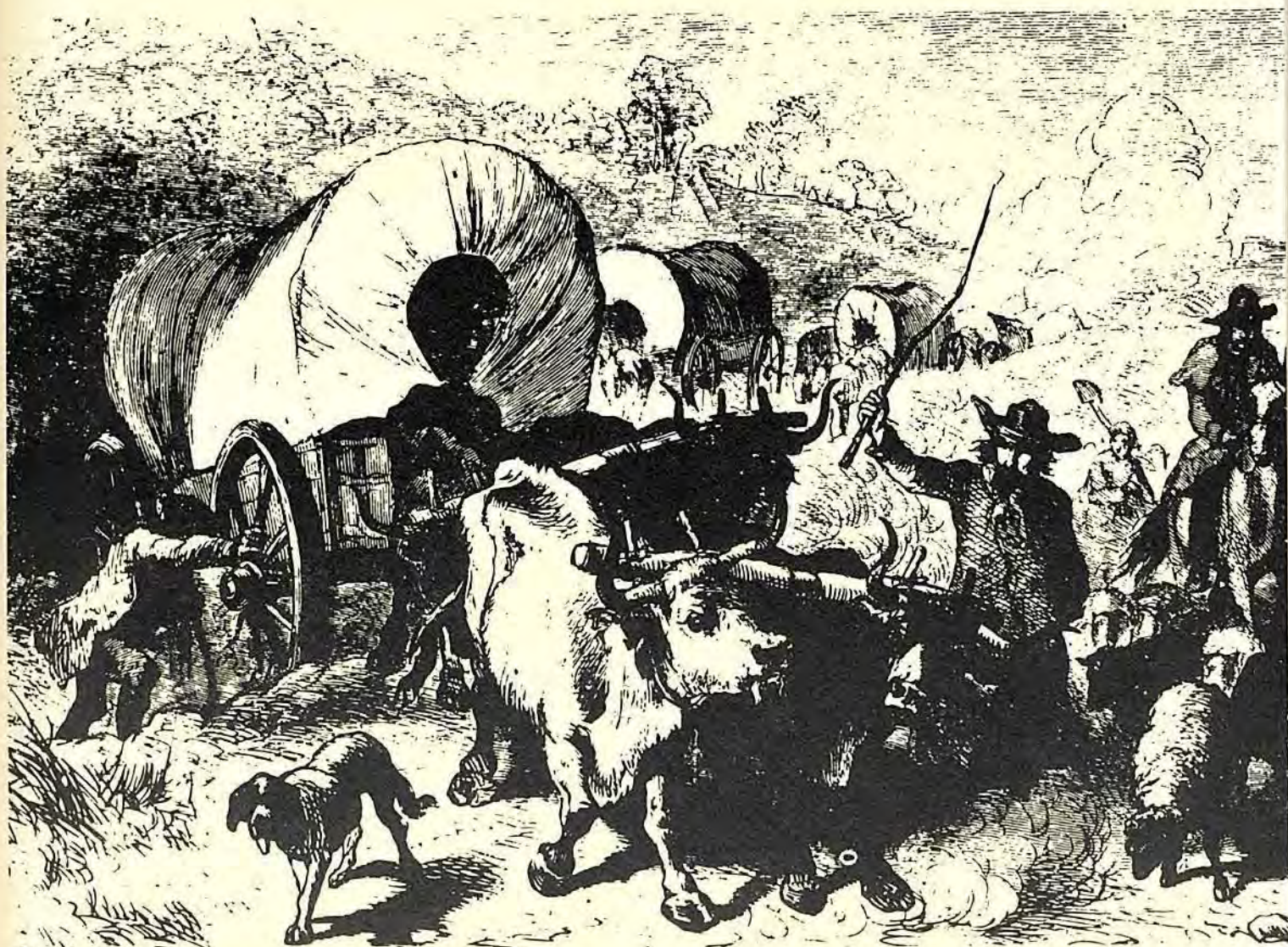
This southwest region was "gittin' on," too. Greene county was organized in 1833 and by 1835 a land office was opened in Springfield, on its way to becoming the most important town in the region. A state road was authorized from St. Louis to Springfield, with the authorization coming in sections. The first legislation was approved February 6, 1837. By then immigrants into the region were flocking over it and its niche in the history of Missouri highways — past, present and future — was carved clearly.

Early settlers had called it the "Osage trail" or the "Indian trail." Later it was called the "Kickapoo trail." But the white man's stamp was marked indelibly on it when it became known as the "old Springfield road" or the "St. Louis-Springfield road."

Progressing through various names and numbers, it became the fabled U.S. Route 66 of story and song. And today, in the latest stage of its evolution as Interstate Route 44, it serves the white man's needs as it once did the Indian.



By wagon, on foot and on horseback, the settlers streamed westward into — and through — Missouri along the Boones' route to the salt licks country.



State Historical Society of Missouri

The Way to Boone's Lick

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WAY

The influx of settlers soon made a road out of the old trace leading to the West

When Daniel Boone moved his family into Missouri from Kentucky he set in motion a series of events which were to stamp Missouri forever with the Boone name and which were to open up the first early road not based on an Indian trail.

The Boone family, during the Spanish regime, settled in the Femme Osage region about twenty miles west of St. Charles. Then in 1806 Daniel Morgan Boone and a brother traveled west to

wagons and four-wheeled carriages and 55 two-wheeled carriages and carts passed near St. Charles bound for the Boonslick country. One writer said he had counted a hundred wagons a day passing through St. Charles at times.

Asa Morgan, in an advertisement in the October 26, 1816 *Missouri Gazette*, reported from Howard County (commonly called Boons-Lick Settlement):

"Missouri and Illinois present an interesting spectacle at this time. A stranger to witness the scene would imagine that Virginia, Kentucky, Tennessee and the Carolinas had made an agreement to introduce us as soon as possible to the bosom of the American family. Every ferry on the river is daily occupied in passing families, carriages, wagons, negroes, carts, etc. — respectable people, apparently able to purchase large tracts of land.

There was
'plenty of room'
in the Boons Lick
Country--and they
headed for it



While Daniel Boone settled down in his son's home in eastern Missouri, the tide of settlers pushed on westward, many in coaches as the land became "civilized."

Division of Commerce and Industrial Development

present Howard county to make salt. No Boones settled at the salt licks but their reports kicked off a stream of immigration and the region became known as the Boonslick country. Five years later, in 1811, Henry Marie Brackenridge on his voyage up the Missouri river found seventy-five families along the river's north bank within a radius of four or five miles.

Indian troubles during the war with Great Britain (1812-1814) stemmed part of the tide of immigration into the Boonslick country until 1815. Then peace treaties with various Indian tribes at Portage des Sioux were made and settlers again poured into the area.

In three years the thirty families of whites above Cote Sans Dessein had jumped to more than eight hundred families. And Franklin, the western edge of the frontier, was growing faster than any settlement on the Missouri. By 1819 the *Missouri Intelligencer* reported that during October, 271

Come on, we have millions of acres to occupy, provisions are cheap and in abundance."

Morgan just happened to have a few acres himself; in fact, a deed of Morgan's to a tract of land from a Frenchman, Joseph Marie, dated 1800, is the first authentic record of settlement in Howard county. "Boons-Lick Settlement," that is.

At any rate, the people kept coming.

To help the travelers along the road the *Missouri Intelligencer* in 1835 published a highway mileage log — which would at least help them figure how far out of their way they had strayed.

According to the log, it was 116 miles from St. Charles to Columbia via Fulton. That was chopped up like this:

"From St. Charles to M'Connell's — 9 miles; to Alexander's — 5 miles; to May's — 10 miles; to Pringle's — 6 miles; to Taylor's — 5 miles; to Pendleton's — 10 miles; to Boyd's — 2 miles; to Widow Kabler's — ¼ mile; to Jones' — 4½ miles; to

Ruby's — 3 miles; to Lewistown — 3½ miles; to Monroe's — 8 miles; to McMurtree's — 10 miles; to Grant's — 4 miles; to Fulton — 12 miles; to Millersburgh — 12 miles; to Vivan's — 2 miles; to Parker's — 5 miles; to Columbia — 5 miles."

This influx of settlers soon made a "road" out of the old Boonslick trace, leading west out of St. Charles. And as it became a road its location stirred up a bit of controversy, an early indication of how much store people put in having a road run nearby.

One petition filed in 1816 asked for a county road from St. Charles toward the Boonslick settlements to the Howard county line. Another later petition stated that the old Boonslick road, never declared a county road, carried the real travel and

state road. And in August of that year Nathan Boone was appointed to survey the route. It's doubtful that he did, however, because in the following February the county court appointed Prospect K. Robbins to make the survey.

At its eastern end the road was laid out as "The Road to St. Charles" because it opened up a westward trail from Laclede's and Chouteau's little trading post of St. Louis. Some historians called the St. Charles road the eastern end of the Santa Fe and Oregon trails — and with some reason. In St. Louis forty wagon builders and numerous other plants made equipment for these westward-moving pioneers.

In 1837 the St. Louis and St. Charles Turnpike company was incorporated. The incorporation act stated that the road should be at least eighty feet wide with at least twenty-four feet of it macadamized. And the company could erect three toll gates when the road was completed with charges not to exceed: For each man and horse, 6¼ cents; for each loose horse, 4 cents; for each four-horse wagon and team, 30 cents; for each two-horse wagon and team, 25 cents; for each gig and horse, 20 cents; for each pleasure carriage, 30 cents; for each head of cattle, 2 cents; and for each sheep, hog or other animal, 1 cent.

But it was 1865 before the company got around to reporting that the entire road between St. Louis and the Missouri river opposite St. Charles had been constructed of rock. Thus, it came to be called the "St. Charles Rock Road."

Farther west the road could boast of few such improvements. Even the man on horseback at times had difficulty mudding through. As one traveler said, "If the mud does not get quite over your boot tops when you sit in the saddle, they call it a middling-good road."

But the Boonslick, the first non-Indian based road, was the first east-west highway across Missouri; it was the trunk from which branched the great trails leading to the Far West. It was the kind of road which carried men described by Isaac van Bibber Jr., a relative of the Boones, when he appealed at Loutre Lick for volunteers to head out along the Boonslick road to the Rocky Mountains:

"Who will join in the march to the Rocky Mountains with me?" he asked, "a sort of high-pressure, double cylinder, go-it-ahead, forty-wild-cats-tearin' sort of a feller? Wake up, ye sleepy heads... Git out of this brick kiln... these mortality turners and murder mills, where they render all the lard out of a feller until he is too lean to sweat. Git out of this warming-pan, ye holly-hocks, and go out to the West where you may be seen."

There were a lot of those people on the Boonslick road in those days.



always had and that the new road was empty.

More petitions piled on petitions as each county tried to officially locate the road. Farmers led the disagreements, wanting to tap the tide of travel for their products.

Travelers along the road complained, too, because they all too easily lost their way. The old direction, "You can't miss it" didn't apply to the road because many forks led off it and there were only two finger boards between St. Louis and the Boonslick country. The complaints also stated that the forks leading off to the settlements usually were more beaten than the direct route and frequently led weary travelers many miles out of their way.

As Missouri entered statehood the controversy still festered in St. Charles over which of three routes would be the official Boonslick road across the county. Finally in January, 1827 a general state law automatically made the Boonslick road a



On the move by land, water



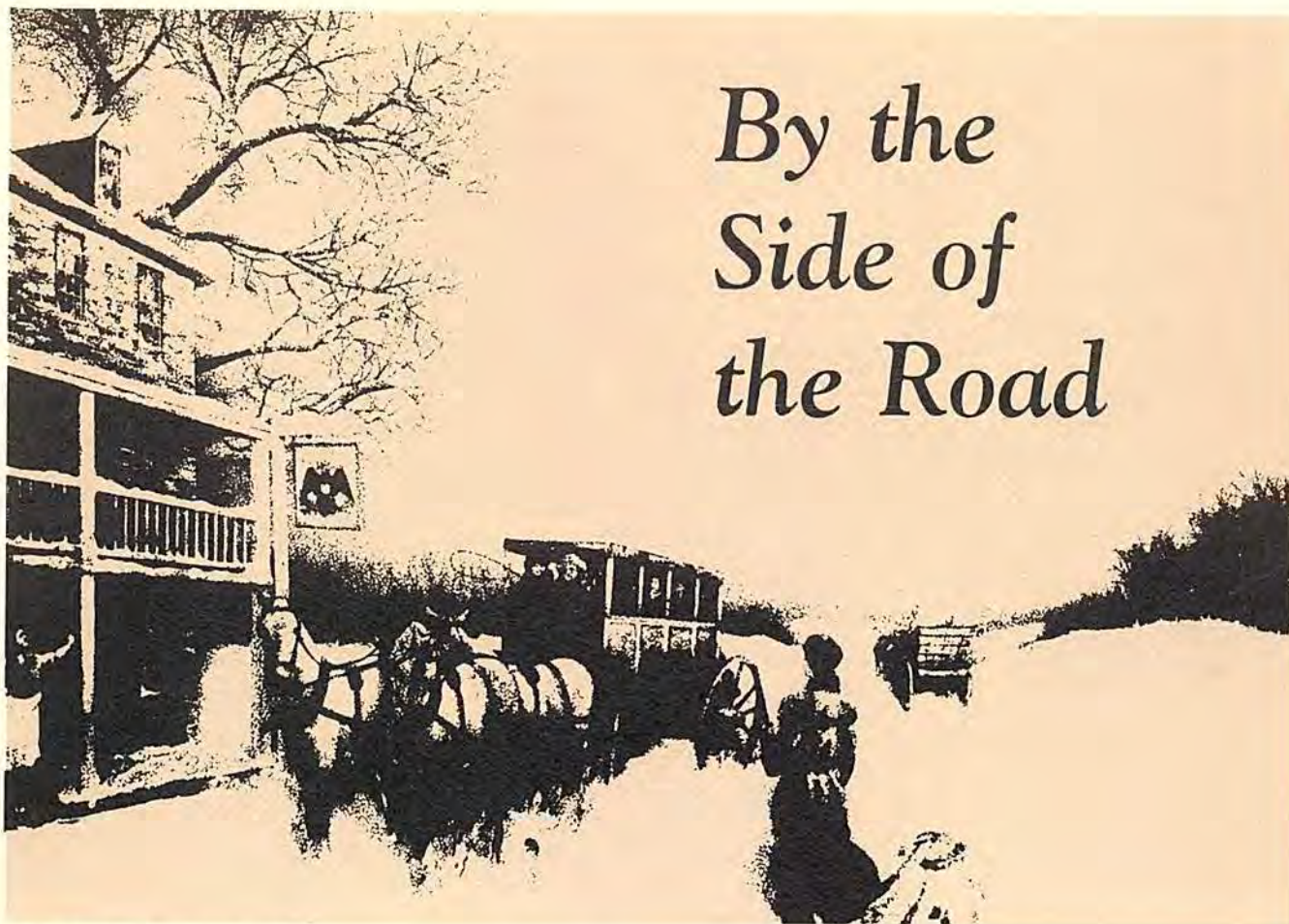
STAGE COACH OF 1816



MAIL STAGE RULES.

- I. THE names of passengers must be entered on the way bills, and stage fare paid before they enter.
- II. Passengers will be permitted to carry fifteen pounds weight in the stage.
- III. One hundred pounds weight will constitute a passenger, and be paid for accordingly; and a greater or less weight in proportion.
- IV. No trunks nor baggage of any kind can be put in the stage at one office, to be paid for at another; but must be paid for where they are entered.
- V. Stage officers will carefully examine way bills on the arrival of stages, to see that the entries agree with the passengers and trunks.
- VI. When a stage officer adds up the amount of stage fare on a way bill, he will sign his name, and draw a line quite across the bill below his name.
- VII. No stage driver will be allowed to receive stage fare, or sign his name to a way bill; but it shall be his duty to take in passengers on the way, and have them entered on the way bill at the first stage office or stand.
- VIII. The mail bags must at all times be carried inside the stage, to avoid any injury from rain, or otherwise.
- IX. The proprietors will not be responsible for any articles of baggage or trunks sent in the stage, in case of their being lost.
- X. No person whatever is to go in the stage free, without written authority from the proprietor or agent.
- XI. It shall be the duty of the stage driver to pay the most strict attention to the accommodation of passengers, and treat them with the utmost politeness.
- XII. No driver shall at any time employ any other person to perform his duty, only in case of sickness, neither shall he absent himself from the line, without giving one month's notice, under the forfeiture of one month's wages.
- XIII. All accounts against the mail stage for work, must be attested by the driver who had it done, or by some disinterested person.
- XIV. Keepers of horses, post masters and stage officers, are respectfully requested to give the most early information in case of any improprieties, or neglect of duty they may discover on the line.
- XV. It shall be the duty of the driver on approaching any town, village, post office or stand, to sound his trumpet, so as to give timely notice; also, in overtaking or meeting waggons or carts; and if any waggon or cart driver on having timely notice, refuse to give the road, so that the mail be detained on account thereof, the drivers are to report such waggoner or cart driver to the proprietors or their agent, but is specially forbidden, that any abrupt conduct be used on the part of the stage driver.
- XVI. Stage officers are requested to keep these rules in some part of their houses most convenient for passengers and drivers to see.
- XVII. No person must be left out, in consequence of trunks or baggage, that does not belong to passengers then in the stage.

EMISON & McCCLURE.



State Historical Society of Missouri

By the Side of the Road

Where three skeins of history came together



State Historical Society of Missouri

Stagecoach travel could be crowded — and bone-wearying — on long trips.

In the 1830's, when the stagecoach driver whoaed his team to a stop at the Cross Keys tavern, three important facets of early Missouri history came together at one time and place.

These three facets were the colorful stagecoach with its load of cramped passengers and mail, the dusty (or muddy) road from which the driver reined his team past the big sign with the crossed keys, and the tavern. These three entries in Missouri's historical index combined to mark an era romantic and adventurous in its rough-hewn color, unique in its contribution to the growth of a young nation flexing its muscles and warm in its social overtones.

Early emigrants into and through Missouri rode horseback along the widening trails or walked alongside teams of oxen pulling wagons loaded with all they owned. But later emigrants, with

fewer goods, and more money wanted to get there faster than a plodding ox or mule team could make it. This fluid frontier did not want for entrepreneurs so stagecoach service soon was offered.

The Missouri Intelligencer in April 27, 1819 reported the prospective opening of such an overland stage routed from St. Louis to Franklin.

"Such an undertaking," it said, "would, no doubt liberally remunerate the enterprising and meritorious individuals engaged and be of immense benefit to the public, who would doubtless prefer this to any other mode of traveling . . ."

By 1823 the "St. Louis and Franklin Stage" was advertising in the Intelligencer three-day service between the two towns — for \$10.50. That included "ferriage" at St. Charles across the Missouri River. A passenger could carry fourteen pounds of baggage — or 150 pounds of extra baggage for the price of another fare. But all baggage was carried "at the risque of the owner." However, "Careful and attentive drivers have been provided, and the accommodation of passengers will be particularly attended to."

As stagecoach travel increased, the roadside taverns cropped up, also to "attend to the accommodation of passengers" as well as to other not-so-well-heeled travelers along the Boonslick Road and other roads leading into the westering Missouri frontier. That accommodation included postoffices, which usually consisted of a box or a desk pigeonhole, with the tavern keeper as postmaster.

Missouri's mail service — officially, that is — started shortly after the U.S. bought the Louisiana Territory in 1803. The first official postoffices were established in St. Louis, Ste. Genevieve and St. Charles. But no one knows exactly when.

But by 1805 President Jefferson had appointed Rufus Easton as first postmaster at St. Louis with an office in a "small room in a stone building on the southwest corner of Third and Elm streets."

Easton became a delegate to Congress from the Missouri Territory in 1814. By that time there were eight post offices in the territory and 219 miles of post roads. But settlers away from the rivers and main roads had to depend on travelers and explorers for their mail "service." These unofficial mail carriers often toted letters addressed to "Somewhere in the Boone's Lick country." And they often read the letters with a true frontier disregard for the privacy of the mails.

There was no spirit of "the mail must go through." And what it often had to go through was bad weather, impassable roads and the hands of irresponsible — and irrepressible — frontiersmen

doubling as post riders and stagecoach drivers. And tavernkeepers doubling as postmasters.

James Jones, who built the Cross Keys tavern at Jonesburg, became its first postmaster in 1838. The postoffice was a walnut desk in the center room of the three-room tavern made of hewn logs with a clapboard covering. Here the postmaster received his "postage" — from five to twenty-five cents for each letter — relayed by the stagecoach drivers. There were no postage stamps; Postmaster Jones jotted down his postage charges in account books, some of which — yellowed and carrying several hundred dollars of uncollected charges — were passed down years later to members of the family.

These roadside taverns served Missouri and its travelers in other ways, too. As Floyd Shoemaker, the longtime and prominent Missouri historian, wrote:

"In the Missouri tavern the pioneer settler and the wandering stranger were first welcomed to our soil. In this early wayside inn business was transacted, religion preached, duels decided, politics discussed and frequently settled, towns founded, courts convened, and hospitality dispensed. It served as home and mart, court and forum. It was the product of a pioneer community, peopled by an honest, fearless, hospitable folk. Conditions produced it that will never return . . ."

Missouri was born a state in a tavern, the Missouri in St. Louis. In the same tavern, the state's first legislature met and Alexander McNair was inaugurated as the state's first governor there. And in it the state's first U.S. senators, Barton and Benton, were elected.

For, Dubuque, Mine's Free Press, Mine's Point, Gazette, Burlington, and Missouri Argus, St. Louis; will each insert the above 9 weeks

STAGES.



THE subscriber having some of the best Eastern Mechanics in his employ, is now and intends to continue manufacturing Stages of every description in the neatest and most approved style of workmanship. He will also attend to Repairing Carriages and Stages at short notice and on reasonable terms. Orders are respectfully solicited. Reference may be had to A. L. Mills, Esq., U. S. Mail Contractor. Shop No. 156 Fourth-street, near the Methodist Church.

TIMOTHY D. EDGAR.

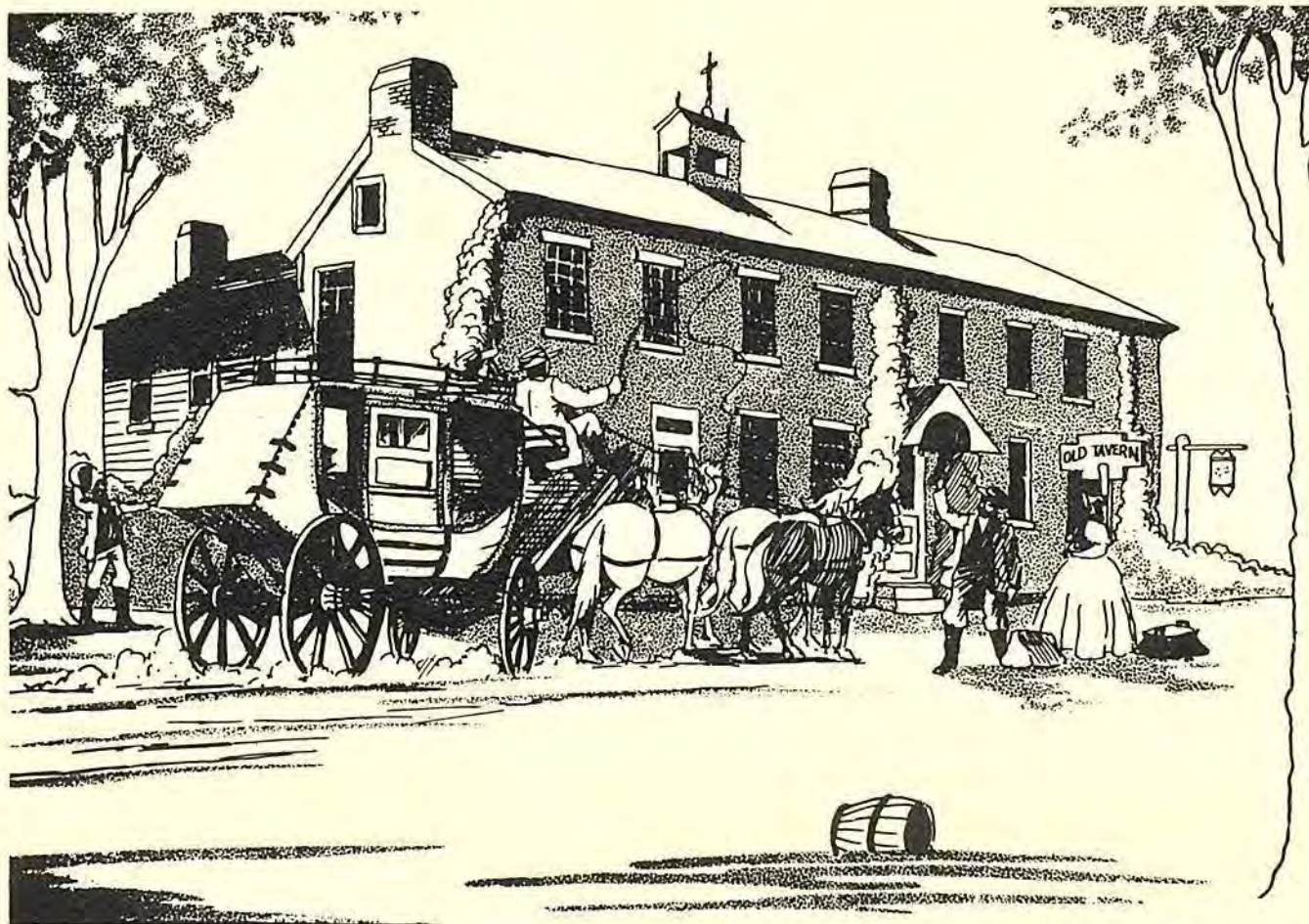
Oct. 31 6m

TAXES! TAXES!!—1837.

THOSE persons who have not yet paid their Taxes for the years 1836 and 1837, are hereby notified, that the undersigned,

CONTINUED

The Missouri tavern 'served as home at



Taverns, along with handling mail, competed with each other in refreshment — food and liquid — and the many methods of frontier news-spreading.

Taverns, in addition to a lot of other goings-on, featured a whole lot of plain preaching. In fact, the combination of tavern keeping and preaching was fairly common. The Rev. Andrew Monroe, for instance, one of the state's first prohibitionists and a Methodist minister, operated a tavern near present Danville.

But the Reverend, stopping at another tavern (Kenner's near Paudingville), had to take a back seat at blessing time. Kenner asked his own blessing at mealtime, concluding: "And for all these blessings we thank Thee, O Lord. Amen. Kick that blamed dog out from under the table."

Dogs might have to be kicked out from under the tables but those tavern tables usually were loaded with good frontier food. And the price was

reasonable, if not downright cheap, even for those days.

William Rice's tavern on the Boonslick road in Montgomery county featured probably the state's first European plan tavern menu. Dinner consisting of corn bread and "common fixin's" was twenty-five cents; wheat bread and "chicken fixin's" were thirty-seven and one-half cents — or three bits, in the frontier vernacular. Both kinds of fixin's cost five bits — or sixty-two and one-half cents.

The westward flow of Missouri settlers — and the ones pushing even farther on — pulled the roads westward with them. And following along

part, court and forum...'

came the stagecoaches, with passengers and mail sacks rattling, and the taverns with good food and talk. Or at least both in good quantities.

Any grumbling about the fixin's carried an element of danger. John Groves, the first tavern keeper in Chillicothe, kicked a food grumbler out the door one day with this explanation:

"The blamed skunk insulted my boarders and I won't stand for it. My boarders eat my fare and like it; and when a man makes fun of my grub, it's the same as saying they haven't sense enough to know good grub from bad. I'm bound to protect my boarders."

As the roads and stage and mail coaches — and the accompanying taverns — were pulled westward, the horizons of these enterprising frontiersmen widened.

During the 1830's and 1840's the rapidly expanding settlements demanded better and more mail facilities, and numerous post roads were laid out in Missouri. In 1850 George Smith, the founder of Sedalia, had a contract with the U.S. government for operating passenger and mail coaches over 483 miles of Missouri stage lines. And

in 1850 Sam Woodson started a monthly stage run from Independence to Salt Lake — along with a mail contract for a regular, dependable income.

In the same year, on July 1, the first mail stagecoach between Independence and Santa Fe rolled out on its first trip to the Southwest over the famous trail first marked out by Pedro Vial in 1792 and re-blazed by William Becknell in 1821 and 1822. The stage was operated by Waldo, Hall and Company under contract with the U.S. government. It ran once a month until 1857 when it started semi-monthly runs. Then came weekly service in 1858, tri-weekly in 1866 and daily service in 1868.

The Santa Fe and other famous trails which originated in Missouri combined with railroads to lead the ever-onward pioneers to the Far West. And they pulled the stage and mail coaches with them.

After a long and bitter fight to establish mail delivery to California a company headed by John Butterfield in 1857 won the contract, backed up by a \$600,000 annual appropriation by Congress. Butterfield's line, with more than 100 Concord



State Historical Society of Missouri

Fording rivers at night could be an exciting experience and evidence of the need for bridges.

CONTINUED

Page 27

From Missouri the coaches rolled west



The monthly stage for Salt Lake City, run by Sam Woodson by 1850, leaves Independence on its long trip that sometimes induced what some writers dubbed "stage craziness."

coaches, a thousand horses and 500 mules and 750 men, stretched from Memphis and St. Louis in the east to San Francisco in the west. Mail and passengers rode from St. Louis to Tipton on the newly-laid Pacific Railroad. There they transferred to stage coaches which swung on a great arc through Springfield to meet the Memphis stage at Little Rock, and from there on through Preston, Texas to San Francisco. The distance — nearly 2,800 miles.

Postage rate was 20 cents an ounce for letters and passengers' fare was \$100 in gold.

John Hockaday, in 1858, joined the stagecoach entrepreneurs with a line from St. Joseph to the army posts in Utah. And in April, 1860 the Pony Express kicked up its heels in a brief but colorful episode.

As the westward rush stretched the stage and mail coach lines and the roads over which they traveled and the taverns where they stopped, the historical triplets left in Missouri started a new era, an era which would lead to new forms for them — and new contributions to the development of Missouri.



Bureau of Public Roads

Planks beat the mud but weather and use soon made them worse than the "rocky road to Dublin," as one Irishman put it.

Dancin' on a Plank Road

The young folks figured it was a fittin' time for dancin'.

Their elders, most of them prominent citizens of Columbia and Boone county, had been plagued for six years by troublesome delays — legal, engineering and personal. Now the long-awaited Providence plank road was completed. All ten miles of it. That included the mile and a half stretch of rock and gravel south out of Columbia toward Providence on the river. (The rock and gravel had been legalized that year for "plank" roads by the General Assembly, just in time for the dedication.)

Now it was July, 1855 and a crowd was gathered at the road's covered bridge over Hinkson creek south of Columbia to see — and hear — the official opening. No self-respecting road could be

CONTINUED



PLANK

Wooden roads looked like a godsend

opened without oratory and the Providence plank road was no exception.

The crowd gathered in the cool shade of the wooden bridge to hear speeches by Colonel William Switzler, Major James Rollins and Robert Todd. Then the Rev. Nathan Hall offered a prayer. With the speechifying over, the young people took over the celebration with a dance on the bridge. Whereupon, one participant recalled, the dignified Presbyterian minister put on his stovepipe hat, picked up his cane and allowed as how it was time for him to leave. And leave he did.

For most Missourians of the mid-1800's the opening of a plank road was a time for dancing. Missouri roadbuilding had broken out in a cacophony of swishing crosscut saws, biting axes, falling timber and buzzing saw mills as a plank road mania swept the state.

Starting in 1849, and running about eight years through the administrations of Governors Austin King and Sterling Price, Missourians appeared intent on lacing the state with "corduroy roads." And with some logic, considering the situation at the time.



This old sketch depicts the Paris to Hannibal plank road west of Hannibal, along with the railroad which was to help seal its doom. The thirteen-mile road cost \$2300 per mile but three miles of it was gravel. Like most of the other plank roads of the "craze" period it was mortgaged heavily, sold and finally almost given away as succeeding investors lost money.

State Historical Society of Missouri

--at first

The idea of wooden roads looked like a godsend — and a cheap and convenient one, at that. The state was blessed with timber. And it was a simple matter to set up a water-powered sawmill on a creek bank.

Then, as the promoters envisioned the undertaking, it was a simple matter to construct the road as the law required, "so as to form an even, smooth, hard surface."

The roads were similar to the plank sidewalks along the streets of these Missouri frontier towns. Three oak sills were laid lengthwise with the road,

and the planks — two and a half inches thick — were laid across the sills. Most of the roads were eight to twelve feet wide, running down the center of a fifty-foot, cleared right of way.

Corporations built these roads — or planned to build them — under charters granted by special acts of the General Assembly. Before the mania ran its course, forty-nine companies had been chartered. Seventeen roads actually were built; all were toll roads except one.

The planned locations of these roads show how the settlers were pushing back into the interior from the rivers. All companies except one planned to build roads leading from towns on the Missouri or the Mississippi rivers. The exception was the Versailles plank road, which was to run from Versailles to the Pacific railroad.

The most famous of these wooden roads — and the longest in the United States — was the Ste. Genevieve, Iron Mountain and Pilot Knob road. Completed in 1853, the 42-mile road connected Ste. Genevieve and Iron Mountain by way of Farmington. Heavy wagon loads of iron ore and farm products creaked over it — and through its five toll gates — until 1857 when the Iron Mountain railroad sounded its death knell.

The Glasgow and Huntsville road also had a lively — if short — life. Captain Alexander Denny, who lived near Roanoke, recalled the four-horse stage that clattered over it daily along with wagons loaded with corn, hay, tobacco and wheat. And he long remembered the sound of horses trotting on the planks on a cold night when they could be heard for a mile away.

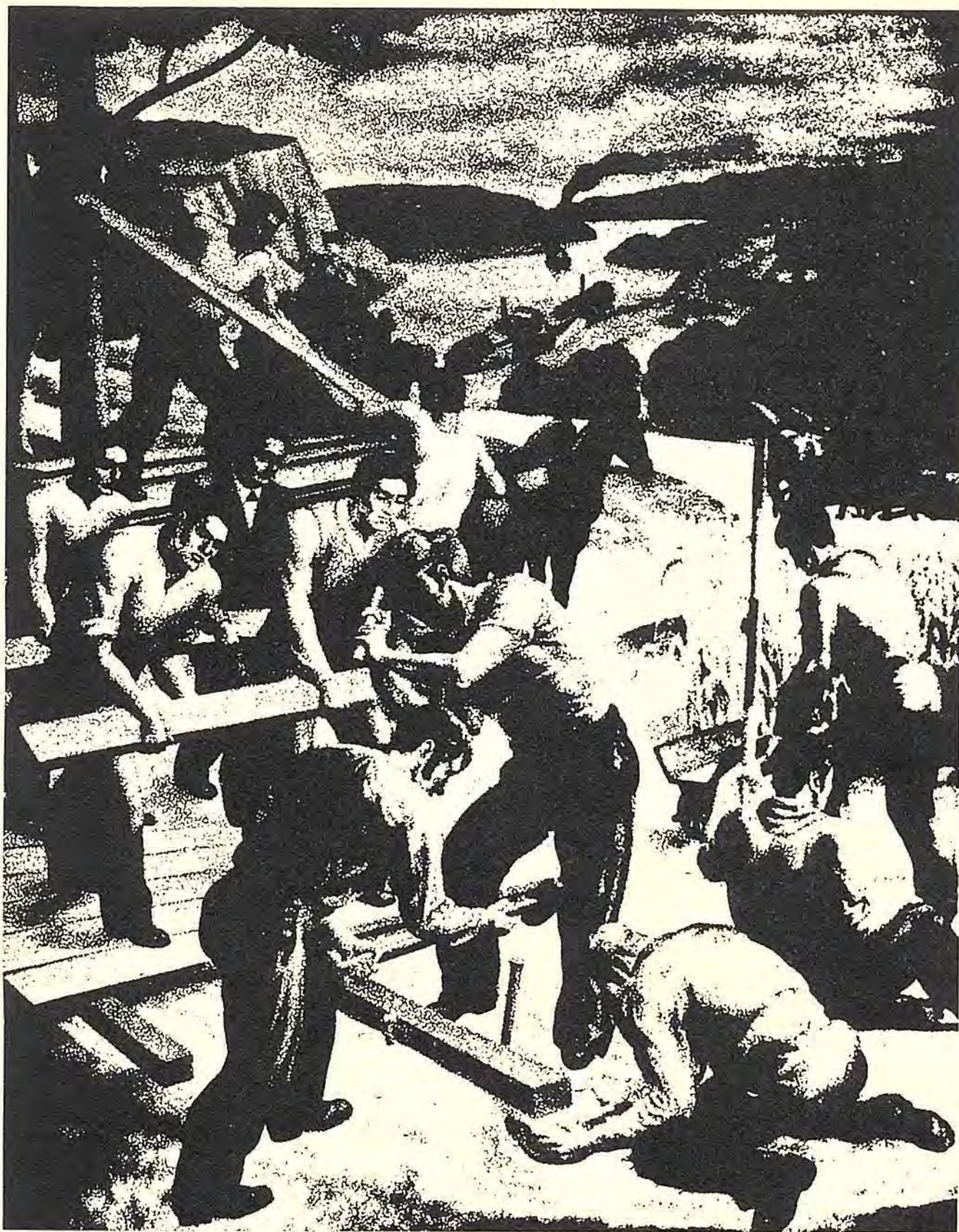
Most of these plank roads carried more high hopes than freight. In its 1856 catalog the University of Missouri declared, "The University is easily accessible by river during the greater part of the year. At the landing at Providence, carriages will always be in readiness to convey passengers to Columbia. To this point a plank road is completed."

But the Providence road, like most of the other plank roads, fell on bad days from the start. A week after the young folks danced on the Hinkson bridge a man tried to lead a cow across it. But Bossy became frightened and bolted through the bannisters, carrying the man — and bannisters — with her into the creek below. The man was unhurt but the cow was killed. And the company paid for her.

Later, heavy rains washed away three small bridges. Then the winter's freezing and thawing jacked up repair costs. And its woes mounted from there, mirroring the difficulties that plagued most of the other plank roads and eventually dragged them down.

Costs of the roads usually were more than

CONTINUED



State Historical Society of Missouri

PLANK

They whetted an appetite for better roads

expected, receipts were less and operating expenses were higher. The contract price, for instance, on the thirteen miles of the Hannibal-Paris road was \$2300 per mile. On the Providence road it was \$30,000 for ten miles.

Finally, despite loans from stockholders, the Providence road company could not pay on its note. The deed of trust was foreclosed in August 1857 and Milton Matthews and other stockholders bought it for \$8700 — two years and one month after the timbers of Hinkson creek bridge shook to the dancing feet of Boone county

Hastened by the coming of the railroads and stage lines and then the Civil War, the passing of the plank roads came swiftly.

The Providence road owners, for instance, finally cut tolls in half to try to save their investment. But it was too late. In desperation they sold it at auction to two enterprising Boone countians for \$400. Tollhouses and lots were sold to other parties for \$400. So the dance-launched plank road which cost \$30,000 plus another \$5,000 for "extras" brought \$800 across the auction block.

Then in 1865 the Boone County Court moved



State Historical
Society of Missouri

young folks. The owners, trying to fend off impending disaster, kept the road open.

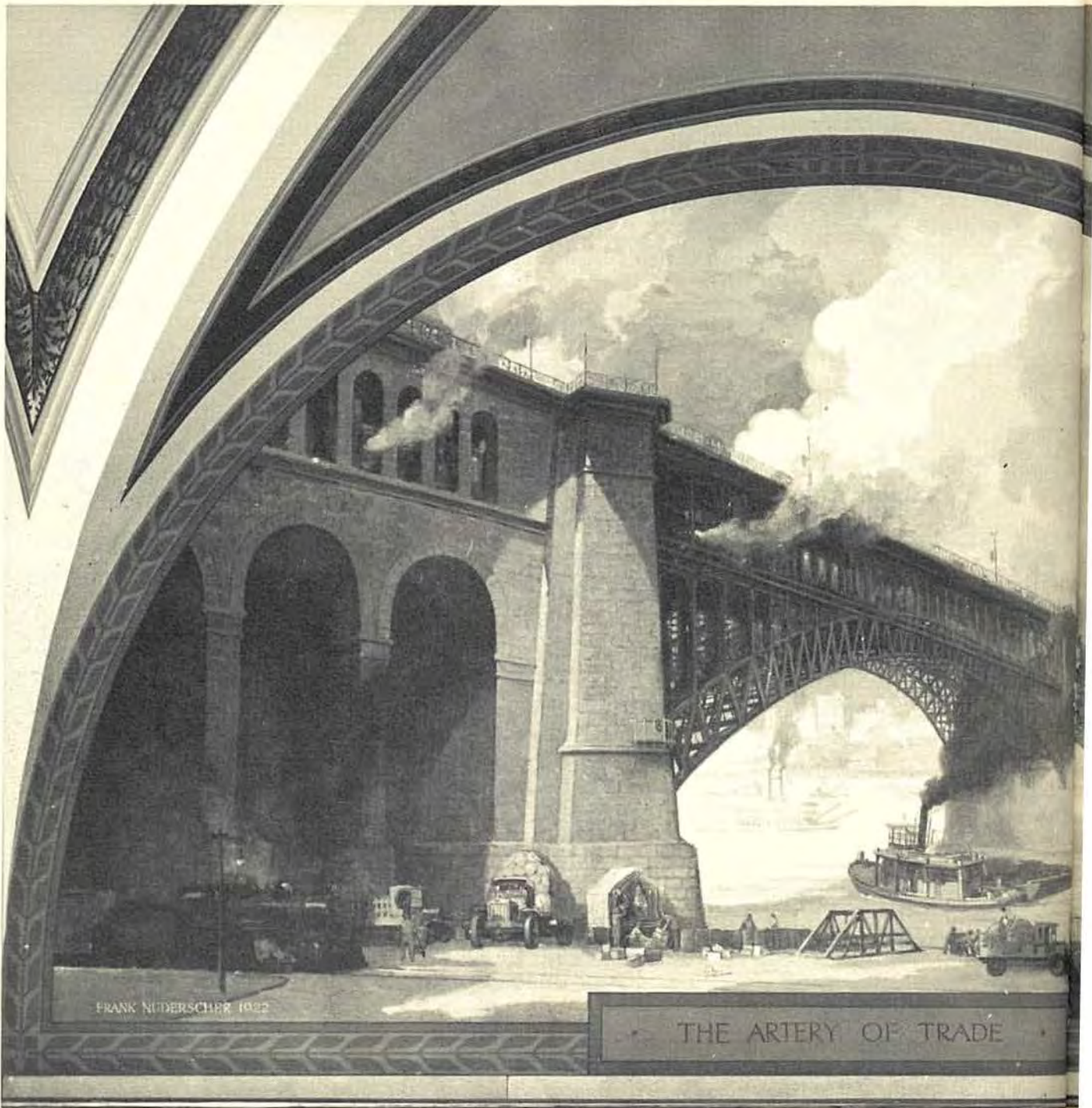
But it and most of the other plank roads were doomed. The planks either sank into the mud to rot away or curled up like oaken pork rinds, making the ride, as Thomas Gentry of Columbia described it, "like a ship riding the ocean waves."

Laying a plank road was a fast way to get out of the mud. But it also was a fast way to financial disaster to most investors.

to take over the road and in March, 1866 the owners surrendered all of their rights to the court. This was the last record concerning any plank road in Missouri.

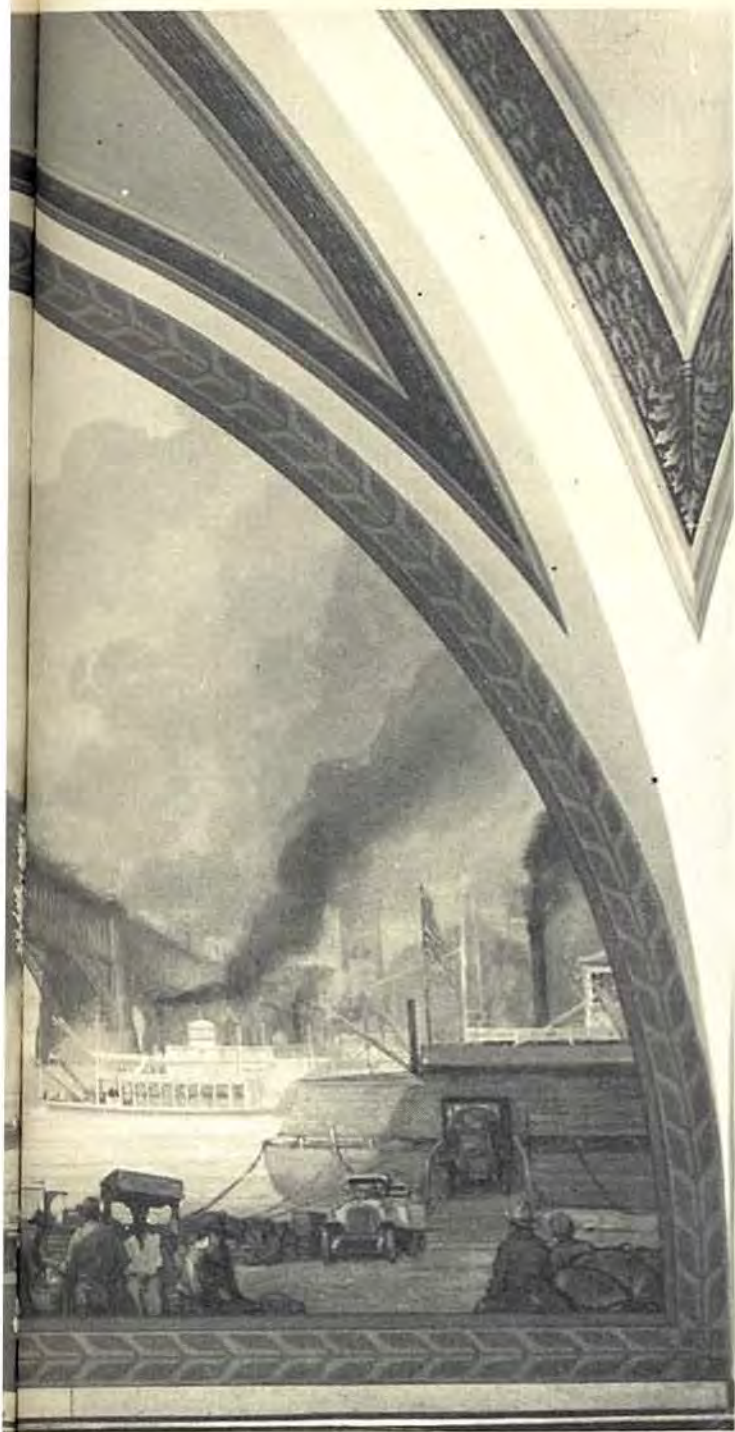
The plank road mania was dead. On first judgment it had been a failure — an expensive failure for many individuals associated with it.

But time was to prove that plank roads were not a complete failure; they whetted the public's appetite for better roads, an appetite which was to hunger again after the bloom wore off the railroad boom.



Eads' Bridge was a revolutionary undertaking, a marvel of engineering and aesthetic excellence, and it tamed the Mississippi River at St. Louis.

The 'finest expression of



Capitol painting by Nuderscher

Early settlers needed bridges to tame rivers and conquer frontiers

“A bridge,” someone said, “is the finest expression of a civilization.”

That’s a pretty sad commentary on the status of Missouri’s frontier as a civilized society. But, then, people weren’t flocking westward across the Mississippi in the early 1800’s to find civilization; they were looking for land and a chance to build on it. Civilization? That could come later.

So when a river cut their westward march they crossed it — perhaps by uncivilized methods, but they crossed it. They forded it, swam it, floated down it and soggly went on their way. When settlements coagulated along these streams and the necessity for repeated crossings arose, these pioneers put their practical minds to the task of devising dry methods of crossing these waters.

Ferries offered a quick and cheap — and usually dry — method. Jean Baptiste Gomphe in 1776, the year that the Constitutional Convention delegates hammered out a Declaration of Independence in a hot Philadelphia summer, con-

a civilization’

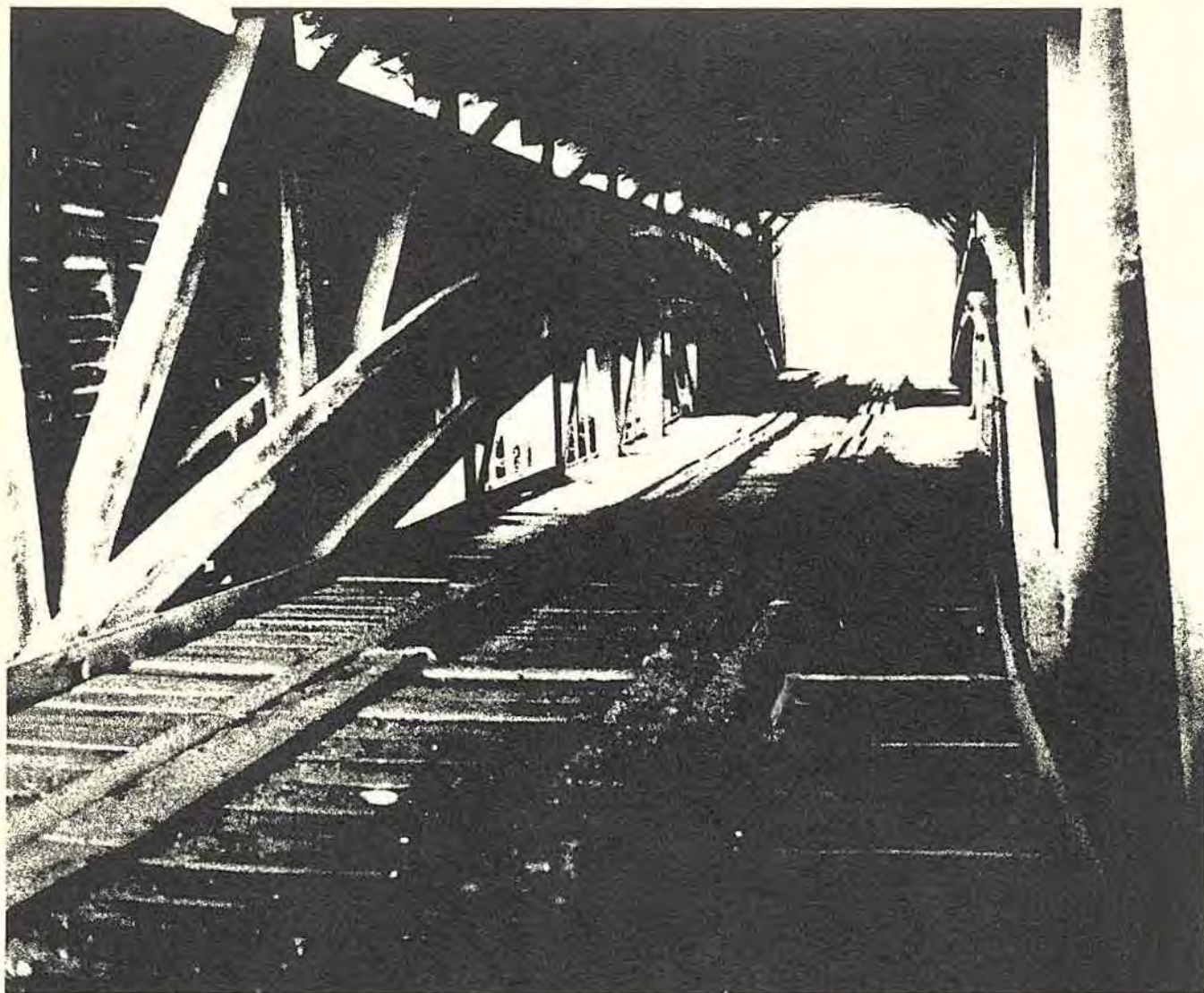


Frugal settlers balked at bridge taxes

cocted a Missouri frontier declaration of independence. At least it was such for travelers crossing the Meramec river on the Indian trail between St. Louis and Ste. Genevieve. His declaration was a ferry across the river south of St. Louis, the first officially recorded — and ordered — ferry in Missouri territory.

Gomache swapped his promised ferry opera-

tion for 1056 arpents of land. With that kind of acreage (measurements varied with locales but an arpent was usually slightly more than an acre) he didn't need to worry about the ferry paying off. The Indians, in fact, displayed a marked unwillingness to pay the toll. Hostile, you might call them. So much so that Gomache closed down for a while until the free-riders cooled off.



Heavy timbers in the early wooden bridges of Missouri gave way to steel in the late 1800's.

Gomache's type of ferry — probably just boats — has been lost in antiquity. But some twenty years later, in 1797, Captain James Piggott got fancy and lashed several pirogues together. He mounted a wooden platform on them and charged two dollars to carry a horse and driver across the Mississippi at St. Louis. That two-dollar toll would seem to indicate that the frontier was becoming civilized fast!

Many other ferries sprang up as more settlers pushed into Missouri to stay. On smaller streams these were usually boats, rowed or poled back and forth. Many of those early river-tamers bequeathed their names to roads and highways of today, like LeMay Ferry road (a boat ride link across the Meramec on the King's Highway) and Hall's Ferry road (named for a roofless flatboat arrangement, propelled at first by a horse-driven treadmill across the Missouri in St. Louis county).

But bridges had to come if man were to conquer Missouri's rivers and in the early 1800's came the first legislation about bridges. In 1814 the General Assembly of Missouri Territory passed a new public roads law which declared:

"... All bridges or causeways made or to be made over small water courses, and causeways, over swamps or low lands shall be made and kept in repair by the hands subject to work on the roads where the same may be necessary, and the materials wherewith the same shall be made, may be taken from any land the most convenient to such causeways or bridges, and shall be laid across the road, and be at least twelve feet long, well secured, and made fast, and covered with earth."

That was hardly a comprehensive bridge law but it was enough to start on. One of the first major bridge building jobs, however, was a military project. With the U.S. Army's Yellowstone Expedition headquartered at Council Bluffs on the upper Missouri, the military forces needed a road from the Boonslick country for moving up supplies during the winter when river traffic was iced in.

On September 2, 1819 Lieutenant Gabriel Fields rolled out of Council Bluffs with thirty men and a six-horse wagon to cut the road and bridge the streams. Fields' detachment reached the town of Chariton forty-seven days later and reported the road completed and all streams (about sixty) bridged except the larger ones such as the Platte, the Nodaway, the Nishnabotna and the Grand.

On his return Fields tested the road and bridges by taking back one hundred and twenty-seven milk cows and seven hundred stock hogs. Or, at least, the *Missouri Intelligencer* at Franklin reported that he started out with that many animals.

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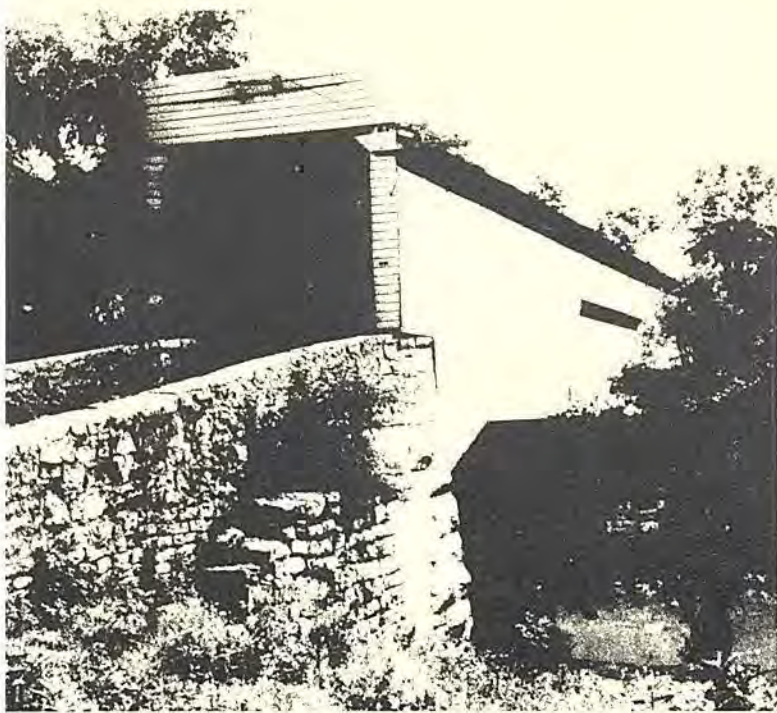
Rickety stilts



A pontoon bridge

But it works





The covered bridges were a haven for birds and lovers — and the subject of spooky stories.

EXPRESSION

By the century's close few wooden ones were being built

By 1816 Moses Austin's town of Herculaneum had established itself as the lead depot for that mining region. With the mining traffic a bridge was needed over Joachim creek so the General Assembly in 1828 granted toll bridge privileges there. The tolls, however, seemed a bit stiff to encourage its use — 6¼ cents for a person, horse or mule; 2 cents per head of cattle; 1 cent per sheep or hog; 50 cents per wagon and team; 25 cents for cart and team; 75 cents for a riding carriage with four wheels and team; and 37½ cents for a riding carriage with two wheels and a team.

During the 1840's and 1850's legislative grants of toll bridge privileges increased rapidly in all sections of the state except southwest Missouri and the Ozark highlands. But few were built.

These frugal — and not overly wealthy — Missouri settlers did not want substantial bridges if they meant substantial taxes or tolls. And bridge

companies wouldn't invest their money until population and trade offered reasonable assurance of a profit.

In the 1850's, however, counties started building some hardy wooden bridges and in the next decade a county bridge tax was tacked permanently onto the county tax list. Also in this decade the use of iron and steel bridges reached the Midwest. In 1868 a steel bridge was built across the Grand River in Livingston county at a cost of \$37,000. Two similar ones were erected during 1871 and by the close of the century few wooden bridges were being built.

The Missouri frontier and its settlers — and their bridges — perhaps couldn't be classed as highly civilized. But these sometimes rambunctious pioneers recognized three powers to be bridled, or at least reckoned with. These were lightning, the ol' Mississippi and them blankety-blank Yankees. Sooner or later, they figured out a way to handle all three of them.

The Mississippi, its bank squatters declared, was a "contrarious varmint which couldn't be caged."

But the Eads bridge "caged" it — and raised the status of the frontier civilization a peg or two in the process.

The Eads, the world's first steel-truss bridge, became the undisputed king of Missouri bridges in the pre-Twentieth Century period. The brainchild of Captain James Eads, it illustrates the capacity of a beautiful bridge to outshine its namesake and become a monument to itself.

Work on the bridge across the Mississippi started in 1867. Engineers questioned its long spans (530 feet in the center with two 502-foot side spans) and the use of steel. And ferry operators fought it as ridiculous competition.

Working in compressed air, and with little knowledge of its effects, 119 men developed "caisson disease" and fourteen of them died. But Eads persevered and, on July 4, 1874, the graceful, 6,200-foot bridge was dedicated after costing about \$10 million.

Few (some people say no) bridges built in Missouri after the Eads rivalled it for beauty and imaginative concept. But they were functional and fit frontier needs.

And as a recent television special report on bridges said in a burst of rare electronic wordcraft:

"Modern man is surrounded by great achievements that don't work very well — cities, the United Nations, plumbing.

"Bridges work."

They brought the need for roads--and for road laws



State Historical Society of Missouri

For many travelers the rough roads of Missouri carried them through the state to the "jumpin' off" places, like Westport, seething with western fever.

CONTINUED

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LAWS

**By 1810 the population
had almost doubled
to about 20,000 people**

The Frenchmen and Spaniards who took turns governing Upper Louisiana for their countries were little concerned with law making — especially laws about roads which, for the most part, still were narrow Indian trails.

The Frenchmen were mainly interested in furs and mines. Coming from the acknowledged world capital of art and sophisticated culture, they surprisingly exhibited an unmatched diplomatic finesse in getting along with the so-called savage Indians. In fact, if the French had been able to handle the English with the skill and success that marked their Indian relations they would have won the New World hands down.

Under the Spanish officials after 1770 the laws and customs of Paris remained in vogue. Spanish was the official language and Spanish titles were substituted for the French. But many Frenchmen were appointed to offices and French, the native language of the inhabitants, was spoken widely. The Spanish regime was respected for its well-selected officials and impartial law enforcement but its new laws mainly concerned the acquisition of lands and regulation of inheritances.

When the Americans bought the whole hunk of real estate it was put under the Territory of Indiana. But in 1805 Congress set up the Louisiana District with its own government. President Thomas Jefferson appointed a governor, a secretary and a legislature, composed of the governor and three judges. General James Wilkinson was the first governor but his administration aroused the ire of the rough frontiersmen and in 1807 he was replaced by Meriwether Lewis, only one year returned from his expedition with Clark to the Pacific ocean.

During the Spanish rule no great need for roads existed; the lead mines were linked to the river and the four military posts strung along the western bank were tied — if loosely — together with the El

The first legislature, meeting at St. Charles, faced many problems, including the growing need for roads.





Capitol painting by Miller

Camino Real. Transportation had been mainly on the rivers so there was no hue and cry for better roads.

But the need was coming. In 1803 the population of what was to become Missouri territory was about 10,000 people. When the Louisiana Purchase was signed and the United States assumed control of the territory, the settlers rushed into Missouri and many new towns sprang up.

By 1810 the population had almost doubled and these new settlements — inland from St. Louis and the Mississippi and Missouri rivers — were needing and pressing for better roads.

The first general road law was passed in 1806, the year before Lewis was named governor. This law allowed "twelve or more freeholders" to petition the district court of quarter sessions "praying for the establishment of a public road, to run from a certain place, to a certain place therein specified."

The court then would appoint three "discreet and disinterested householders" as commissioners and a surveyor to lay out the road. The law also provided for right of way damages, setting up road districts and appointment of overseers.

This first step, a public road system, rested then on a fragile network of district roads, under the jurisdiction of the court of quarter sessions.

Two years later, on June 30, 1808, Territory Governor Lewis signed an act ordering the "laying out of roads from the town of St. Louis to the town of Ste. Genevieve, from thence to the town of Cape Girardeau, and thence to the town of New Madrid." Thus the old El Camino Real, or King's Highway, became the first legally designated road west of the Mississippi.

Three "proper persons, one of whom shall be a practical surveyor," were charged with laying out the road "on the nearest and best ground" and to designate it "by plain and distinguishable marks." It was laid out so expeditiously that by March 1809 a map of it was made. This route could be called a territorial road because it was ordered by a territorial law but it actually was a district road in that districts had to pay for the mileage through them.

In Missouri's territorial period — 1804 to 1821 — road making, along with other government administrative functions — was pulled back and forth like a tug-of-war game. From 1805 to 1812 the court of quarter sessions administered the affairs of a district or county; from 1812 to 1815 the responsibility was shifted to the court of common pleas; from 1815 to 1816 it was vested in a county court; from 1816 to 1820, in a circuit court; and after 1820 it was switched back to a

CONTINUED

LAWS

**'I came through there
but I thought that the
place was a grog shop . . . '**

county court.

In 1814 the territorial road laws were rewritten. All roads established by any court were declared "public roads." But road development was slow. By 1834 only sixteen "state roads" (which meant only that the state determined the route of the roads) had been opened, all by legislative action, which would indicate that there weren't "twelve or more freeholders" interested enough to petition for a road. In the 17 years that followed more than 400 roads were authorized by legislation ordering new roads or declaring certain county roads to be state roads. But the financial burden of building and maintaining them rested on the counties.

This put the tax squeeze on the older counties because many of them had several local roads by then and they generally were a higher type. But the newer, frontier counties had few roads, needed few and had little difficulty in getting at least primitive roads as they were needed.

The General Assembly tried to alleviate the problem by passing relief-giving special legislation to individual counties. But this produced such a flood of legislation that the general law of 1835 was disregarded and finally repealed in 1837.

The 1835 road law, however, included a special act of interest. It was "to establish a state road from the City of St. Louis to the City of Jefferson, by the way of Manchester and Union . . ."

Samuel Farley of St. Louis county, Nathan Richardson of Franklin county and Samuel Abbott of Gasconade county were named commissioners to survey and mark the road. They were to choose a surveyor and two chain carriers — and could pay the surveyor \$2 a day and the chain carriers 75 cents a day.

An 1837 amendment required that "three disinterested freeholders" investigate the route —

By mid-century the City of Jefferson was a-building around the stately capitol atop a bluff along the Missouri River. And roads were needed to connect the capital city with other parts of the growing state.



State Historical Society of Missouri

and approve or disapprove it. Then a commissioner was to "open a road at least 30 feet wide, with at least 15 feet of it being cleared of all stumps, trees, grubs and other obstructions."

The state did get its hands on some road money during the period but its help to the counties was slight. The money came from the Road and Canal Fund, commonly called the Three Percent Fund because its source was three percent of the sales of public lands in the state.

Missouri's early legislative progress — in roads and other matters — should be viewed against the background of the era and the



men who lived it.

A transplanted Virginian, writing to his brother back home, described the Missouri legislators of 1837:

"You must picture every kind of mortal from the serene old statesman to the most rough-hewn backwoodsman; with now and then a pert little dandy; there are some more ordinary looking men than any in your vicinity — a tribute indeed to the land of my adoption.

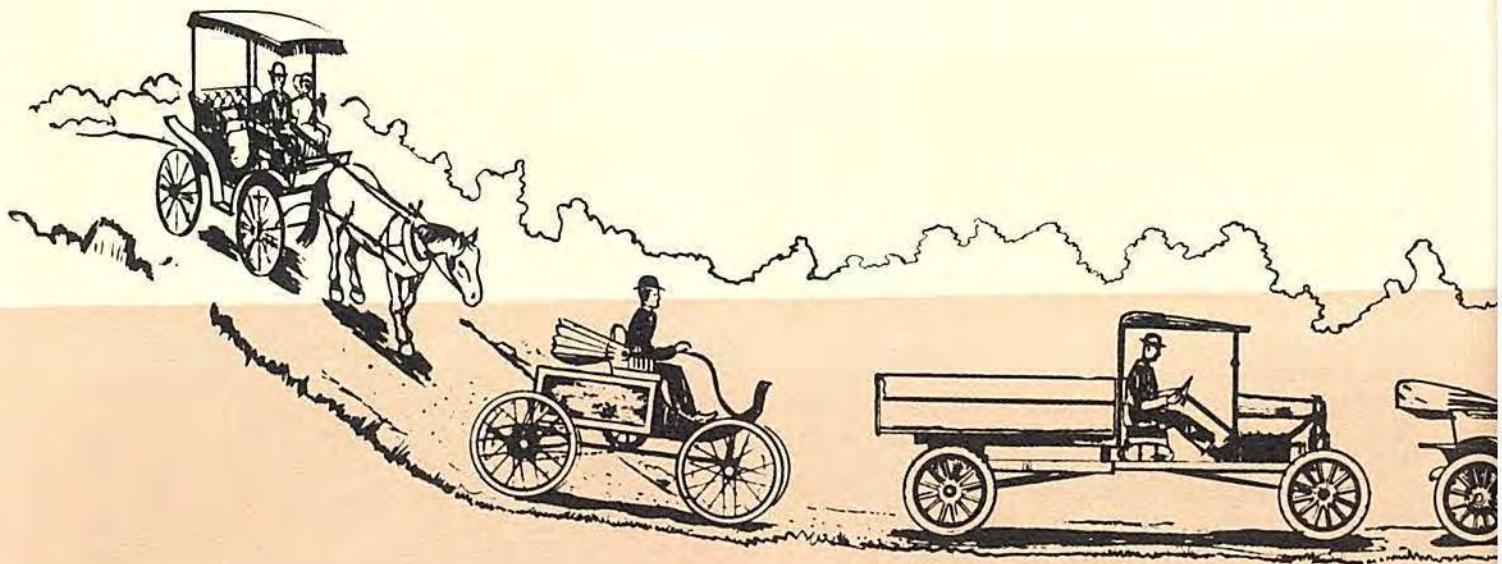
"... Though we have some very ordinary men, we have also some very smart or rather talented men."

He topped off his legislative picture with an anecdote about a Mr. Wilson, a member of the

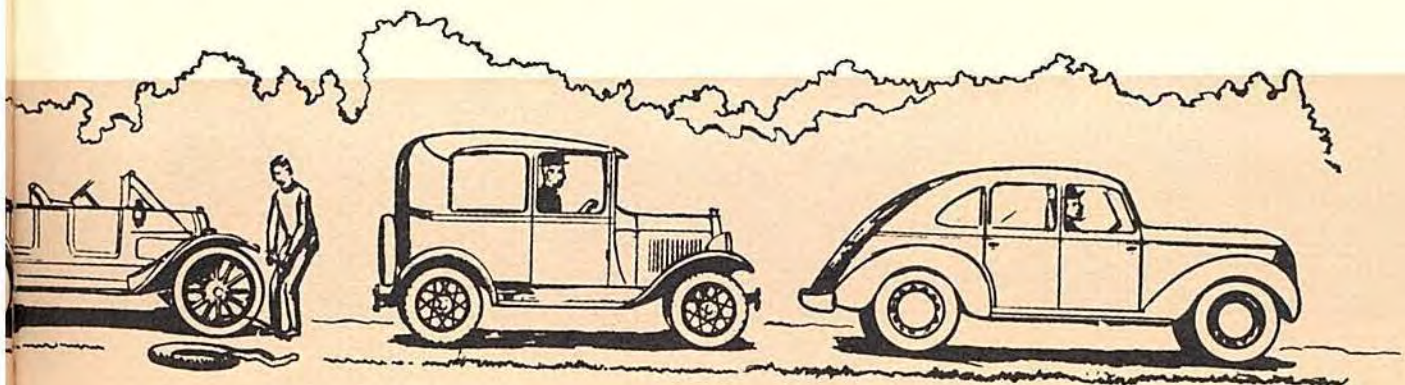
House, who came to Jefferson City and offered his credentials to the Senate. When informed of his mistake, he answered, "Damn, I came through there but thought it was a grog shop."

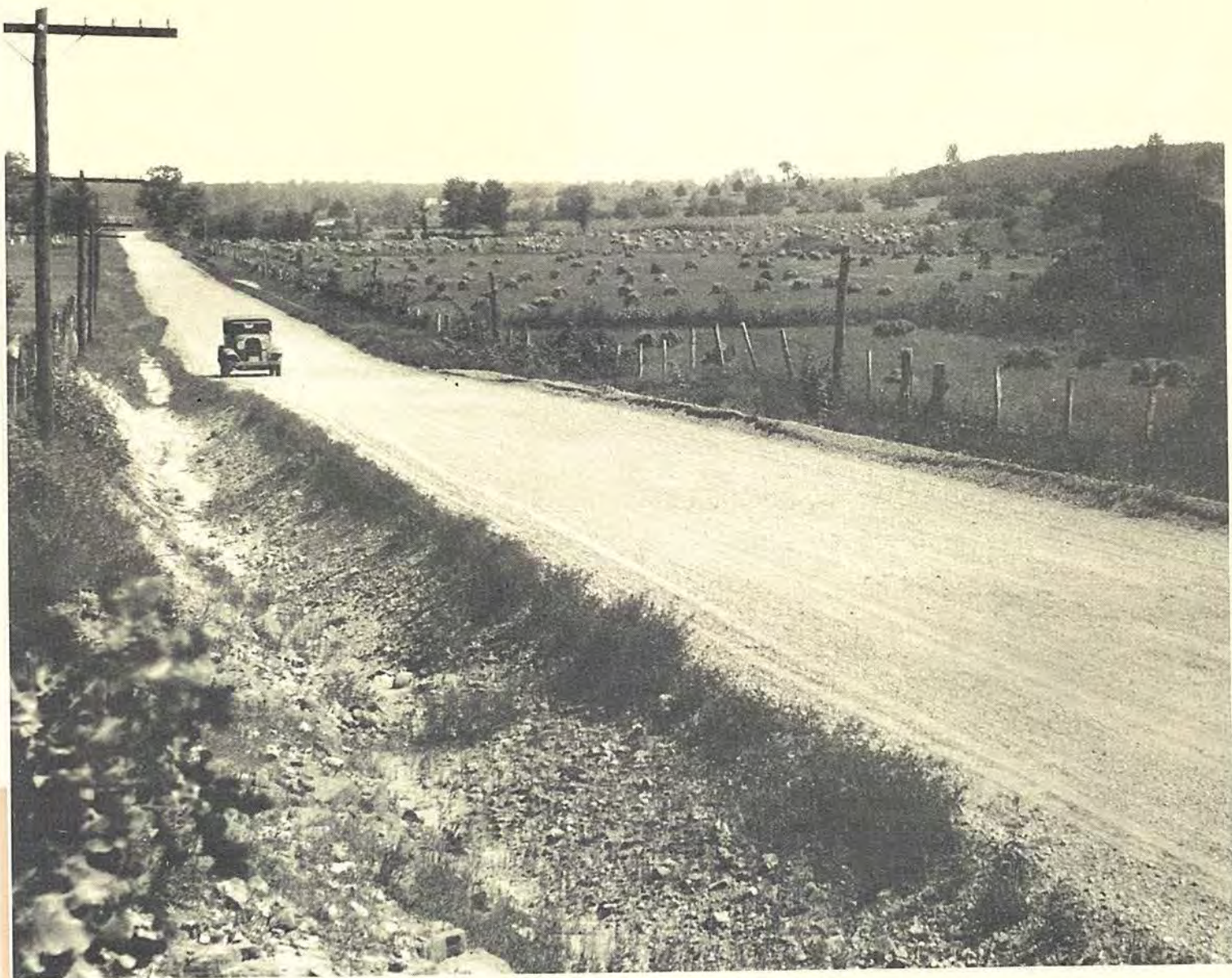
But these inhabitants of a "grog shop" laid the legalistic foundations for the state, including roads. And the lack of dramatic progress in roadbuilding could not be blamed entirely on them.

The Civil War and the coming of the railroads combined to stymie the little progress being made on roads. The railroad dominated long distance travel and roads became a carrier of local travel and feeders to the nearest railroad. Good roads must wait until the passing of the Iron Horse — and the coming of the Tin Lizzie.



The Years Between





A sort of journey

In 1883 a St. Louisan named J.D.P. Lewis built a "self-propelled vehicle," the city's first. It could clatter along at speeds of seven to eight miles per hour, to the open-mouthed amazement of the Mound City's residents and the wild-eyed terror of their horses.

That same year, in Sedalia, a group called the Missouri State Roads Improvement Association held its first annual convention. Governor William Joel Stone addressed the group, telling its members that "...roads are the products of age and development."

That's the way it was from the beginning of Missouri's revolution of the roads. And a revolution it was. Between this century's dawning and its most terrible war, Missouri's highway system underwent a mighty social, economic and geographic upheaval. It was triggered unawares by a man of genius from Michigan who reversed a food-processing technique he had observed in Illinois. The man was Henry Ford. With his assembly line and its rapidly multiplying spawn, he profoundly changed the mobility, the manners and even the morals of Missourians and all other Americans.

The cars came. And Missourians of unborrowed vision approached the herculean task of building roads, streets and highways for them.

The cars came. First in a trickle they came, then in a steady stream, in a constantly swelling torrent by the last years of the 1930's. As they came, the job of providing the highway system they required got big and demanding fast.

But the job was started. The building of a highway system was begun. Its creation was not a discrete event. It was a continuing process. A sort of a journey.

This is the story of that journey.

It smoothed things over on early Missouri roads

What pulled Missouri out of the mud? Why, anyone with even a nodding acquaintance with Missouri roadbuilding history "knows" that it was the passage of the two multimillion dollar bond issues of the Twenties. Or the Centennial Road Law.

Well, maybe . . .

But a quarter of a century before the Twenties roared in, a North Missouri man and the "machine" he built made substantial contributions, indeed, to the laudable cause of lifting Missourians out of the mire.

The man was D. Ward King of Maitland in Holt County. His machine's efficacy was exceeded only by its simplicity — and the eagerness with which highway boosters embraced it. The machine was a split log drag which he invented, built and demonstrated with the zeal of a missionary to interested individuals and good roads groups inside Missouri — and out.

King devised his drag in 1894. It was a simple rig, cheap to make and easy to operate. But it worked. And the word that it worked got around fast. Nobody labored any harder at spreading the good news than the inventor himself:

"Mr. King," write Gary and Robbins in their *ROAD HISTORY OF MISSOURI*, "was a crusader and when he was not using his split log drag he was making speeches about it or writing articles for the papers about it. In later years he even carried what became officially designated in 1908 as 'the Missouri idea' to other states, by means of chautauqua engagements."

Evangelistic fervor of that sort makes things happen . . . particularly when it's enlisted in the cause of something that works as well as did D. Ward King's split log drag.

The State Board of Agriculture held a good roads convention in Chillicothe in 1906. Several thousand good roads advocates from all over Missouri attended. They worked long and deliberated hard over the problems of roadbuilding and maintenance, and at the end of it all they put all



The marvelous

their conclusions into only five resolutions. One of them said this:

"We strongly endorse the drag as the most effective and practical method of maintaining dirt roads, and would suggest that some law be enacted whereby its more general employment for this purpose may be effected."

King and his drag were becoming somewhat celebrated.

In 1907 the State Board of Agriculture called another good roads convention. This one was held



s Maitland drag

in Jefferson City, and it brought together as delegates about 150 of Missouri's leading good roads enthusiasts of the day. And they elected as their president D. Ward King of Maitland.

Maybe King and his drag aren't among the biggest factors in Missouri's 20th Century highway history. But if their place isn't of prime importance, it is by no means insignificant either. And their right to it is secure.

Until the Twenties roadbuilding and road maintenance in Missouri were primarily local prob-

lems. And there was neither money enough nor sentiment enough to hard surface many miles of Missouri roads.

The roads Missourians drove over were mostly dirt — or mud or dust, depending on the season. They were mostly bad, too — until the arrival on the scene of D. Ward King and his split log drag. And if they didn't lift Missourians out of the mud, they at least smoothed it over.

That was no small achievement, come to think of it.

The long

**From passions, powers;
from conflict, compromise;
from men, a model road law**

When free people govern themselves well, they do it largely by a just and prudent balancing of all the special interests involved. That's how government happens in a free society. That's why so many hymns of praise are sung to the gentle art of compromise.

Only compromise isn't a gentle art. And when it comes, it comes as a disappointment to the contending factions whose passions and powers have created the situation which brings it into being.

In the summer of 1921 passions and powers a-plenty focused on Missouri's capital city — and the passage of what was called the Centennial Road Law. It was a long hot summer . . .

Important parts of the high political drama which was played out in Jefferson City during that summer of 1921 had their beginnings a decade earlier, and more. Both Governor Joseph Wingate Folk and Governor Herbert Spencer Hadley had been much interested in the possibility of building a cross-state highway which would link St. Louis and Kansas City.

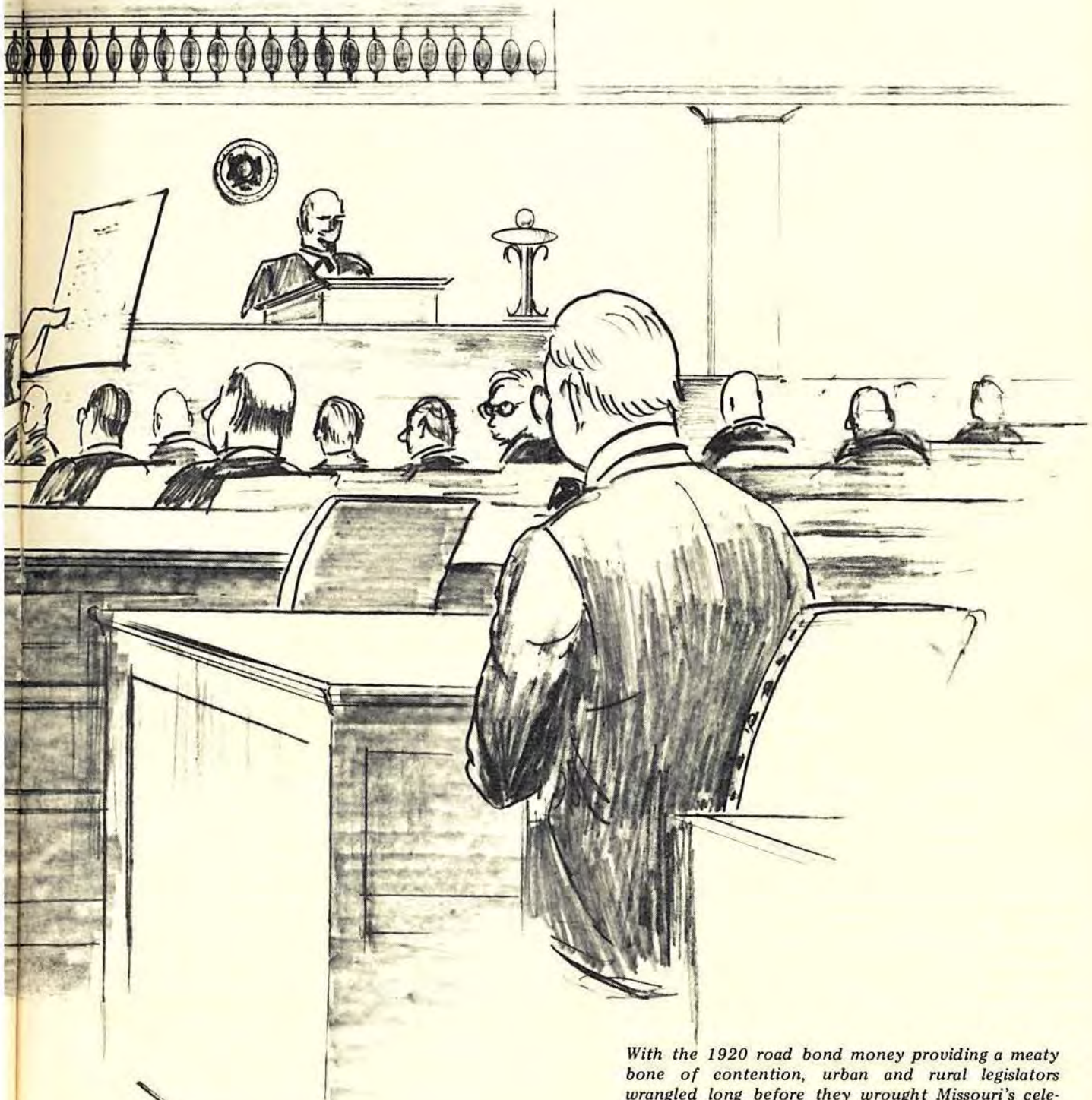
Three possible routes across the state had been suggested by Curtis Hill, then State Highway Engineer. In 1911 Governor Hadley appointed a committee from the State Board of Agriculture to study the comparative feasibilities of the three routes. The members of this committee toured each of the three, along with the governor, the lieutenant-governor and others.

In August of 1911 a meeting was held in Jefferson City to select the route which was to become known as the "Old Trails Road." Missouri historian H. B. Dickey has described that meeting and its aftermath:

"The hearing was long to be remembered as a red letter day in Jefferson City. For seven exciting hours over 1,600 persons sat in stifling heat, under



hot summer



With the 1920 road bond money providing a meaty bone of contention, urban and rural legislators wrangled long before they wrought Missouri's celebrated Centennial Road Law.



HOT SUMMER

A solid decade of interest led to a legislative showdown in '21

the spell of Missouri oratory, while the proponents of the various routes pleaded their cause . . ."

"At noon the next day, August 3, the State Board of Agriculture announced the selection of the Central Route from St. Louis to New Florence. The Board met again August 17, 1911, and after hearing a report by Curtis Hill, State Highway Engineer, designated the Central Route as the Cross-State Highway. Engineer Hill made a further report to the Board, September 29, 1911, setting out the progress made and stating that road bond issues in Lexington, Columbia, and Fulton had carried to the extent of \$330,000."

There weren't enough communities like Lexington, Columbia and Fulton along the proposed

Missourians chugged and clattered into the Turbulent Teens with flags flying and in a traveling mood. They had some cars. They were going to have more. They wanted better roads — and soon.

route, and the road wasn't built. Its building depended on the passage of road bonds in communities all the way across the state, the formation of special road districts and the help of county courts in every county through which it was to pass. This high degree of cooperation among the people and the local agencies of government wasn't attained. Probably it wasn't attainable in 1911 and the years immediately thereafter, given the fact that, in those years, roadbuilding was mainly local and county business.

But something big was stirring here. The fact that a cross-state highway had been proposed and had gained significant support whetted the desire of all Missourians — especially the residents of St.

Louis, Kansas City and the other population centers through the state's midsection — for better highways. That sharpened desire was to cast a giant shadow, a shadow which would fall starkly across the deliberations of the 51st General Assembly in the history-making summer of 1921.

The people who lived in the cities of Missouri didn't feel the same way about highway matters in 1911 as did the people who lived in the state's smaller communities and on its farms. The differences between their points of view would become the lines of demarcation along which the bitter battle of the summer of 1921 would be fought.

With the enactment of the Hawes Law in 1917, the General Assembly gave Missouri its first modern highway legislation and shifted the primary responsibility for roadbuilding from the counties to the state. In 1919 the legislature's passage of the Morgan-McCullough amendments greatly increased both the scope of roadbuilding efforts in Missouri and the extent of the state's participation in them. In his book *MISSOURI AND THE MISSOURIANS*, Floyd C. Shoemaker describes the situation:

"The plans completed by 1920 were ambitious, but work moved slowly and it became apparent that revenue was insufficient. Therefore, the voters of Missouri were urged to support a bond issue of \$60,000,000 in the election of 1920."

Helping in the urging were personnel of the Missouri State Highway Department. In *ROAD HISTORY OF MISSOURI*, Theodore Gary and Henry P. Robbins wrote:

"A thorough campaign of education was carried on. State Superintendent Malang issued several bulletins and made effective speeches in fifty of the counties in which there were road bond campaigns. The entire department personnel rendered great service in carrying the \$60,000,000 bond issue."

The citizens of Missouri were ready to authorize the expenditure of some big money by their fledgling State Highway Department. The bond issue won a comfortable victory, carrying in 61 of the state's 114 counties and the City of St. Louis.

Now there was money enough to implement the ambitious Hawes Law and Morgan-McCullough plans. How would the money be spent, and what would be the climate in which the legislature would decide? Gary and Robbins set the stage:

"The great state bond victory had aroused greater expectations. The Fifty-first General Assembly was to be notable . . . It was soon seen that the road question was too big to be tied up with the multitudinous duties of the regular session. So

road legislation was postponed to a second extraordinary session, called for the heat of midsummer."

More was destined to get hot than the weather. The people of St. Louis, Kansas City and the state's other large communities wanted one set of things and badly. The people of the state's small towns and farming areas wanted another set of things and just as badly.

The duly elected representatives of the two groups were obliged to resolve the differences between them, if possible. Urban and rural legislators were on a collision course. And Jefferson City was going to be the scene of the crash. Once again, the building under the big dome was to become a battle ground. Some law was about to be made.

Much of the work for the 1920 bond issue, though by no means all of it, had been done by residents of the state's urban areas. These urban bond issue advocates had thought they were working for a statewide road system, and when the bond issue was secured, they expected to get one. They assumed that any state system built would start with a St. Louis to Kansas City cross-state highway.

The memory of the cross-state highway which had been proposed but not constructed in the Hadley administration was fresh in their minds. The time to get started with the building of that highway, they felt, was at hand. Naturally enough, their wishes shaped the thinking and the action in the State Senate, the body in which urban causes traditionally got their most friendly receptions.

In the upper chamber, Senator Ralph of St. Louis County authored a measure which provided for continuous, connected, hard-surface state roads. The Ralph Bill sailed through the Senate.

But the House was in no mood for the sort of roads the Senate sought. "Peacock lanes," House members called them. And they wanted none of them. The entire Ralph Bill was thrown out, and the House substituted a measure of its own.

Gary and Robbins said about the House's substitute bill and the thinking behind it:

"It was virtually a town to town designation. Each member of the House knew his own county, its towns and roads. He had the advantage of field surveys. Connections with neighboring counties were arranged among neighboring members. Scant consideration was shown the . . . Senate highways. The House, overwhelmingly rural, talked farm to market roads. Some members did not believe that any roads except dirt roads could be built in Missouri. But for the conditions of Federal aid and the necessity for final concurrence by the Senate, many members would have disposed of the funds

CONTINUED

House Speaker O'Fallon breaks a formidable legislative log-jam

in the old-fashioned way, by distribution among the counties. The 4,000 road overseers would have found a way to spend the money."

While the metropolitan press heaped imprecations on the heads of the House "dirt roaders" and "mud daubers," the substitute House measure was sent back to the Senate. Without delay, the upper chamber threw out the whole of the House proposal and put back the Ralph Bill . . . sentence for sentence, word for word, comma for comma. Stalemate.

A Senate-House Conference Committee was formed. "The conferees," remarked Shoemaker drily, "were truly representative. They wrestled night and day, with no sign of agreement."

Time passed. Tempers shortened. Mutual recriminations increased. Nothing came out of the Conference Committee. It stayed hot.

Many members of the legislature assumed that the deadlock in the Conference Committee couldn't be broken and began making preparations to leave Jefferson City. Some actually left.

But even as these pessimistic legislators were going out of the capital city, good roads advocates by the scores were streaming into it. They came to watch, to lobby for their specific causes, to encourage their legislative friends, to put pressure on their legislative foes.

One of the lawmakers who seems to have assumed that there was no way out of the legislative impasse which had developed was Representative D. L. Bales of Shannon County, one of the Senate-House conferees. He suggested a gentleman's agreement between Senate and House members: Each body would pass the other's bill and both bills would be referred to the people in the general election of 1922. The proposal found no general support. The responsibility for formulating some sort of highway legislation acceptable both in the cities and in the country remained with the General Assembly.



What was needed was a member of one house whose devotion to the cause of good roads for all was so obvious that proposals made by him could be accepted by members of the other house, a man who could protect his own group's special interest and realize while he was doing so that other groups had legitimate special interests, too. As the special session ground frustratingly on — active but not productive — such a man emerged.

He was the Speaker of the House, Sam O'Fallon of Holt County. Largely because of the influence exerted by him, the House finally agreed to a pair of provisions which seemed to favor the interests of the city-dwellers. Both were written by O'Fallon.

The first authorized the Highway Commission to designate as "higher type than claybound gravel" about 1,500 miles of roads connecting the principal population centers of the state. The second earmarked a third of the bond money

The big roads battle in the Missouri General Assembly was between country and city... between those who wanted many roads like the one at left and those who wanted fewer roads like the one at right. It sometimes seemed they'd never get together. But they did. And when they did, they made a law. And some history.



proceeds, and \$6,000 a mile from the other two-thirds, for use on these hard-surface roads.

The legislative log-jam was broken. The urban interests which dominated in the Senate were to get their "peacock lanes," and the "mud daubers" who dominated in the House had given the proposal their reluctant assent. Wearily, warily, mostly feeling that they had failed in what they set out to do, the members of the Missouri General Assembly heaved a collective sigh and settled down to writing the rest of the Centennial Road Law.

In MISSOURI — MOTHER OF THE WEST, the law which finally was enacted and the attitudes of the men who made it were summarized like this:

"... the law itself was a last-day compromise to end what seemed to be a hopeless deadlock and neither members of the House and Senate who finally voted for it nor the governor who approved it felt that it was satisfactory. Nearly all the men who had led in the bond campaign were grievously

disappointed. Road experts declared it 'a miserable mess.' It was freely predicted that it was impossible of execution."

That's the way it was in the City of Jefferson and the State of Missouri in the summer of 1921. That was the mood which greeted the creation by the General Assembly of Missouri's Centennial Road Law, now widely agreed to be among the most enlightened and most important single pieces of highway legislation ever enacted by a state legislature.

Special groups have special interests. And they fight for them. But free people can govern themselves well by a just and prudent balancing of all the special interests involved.

It's not a theory, it's a fact. Missourians proved it when in heat and in anger, in pride and in self-seeking, they worked and worried through one hot summer at a problem they all shared until they hammered out their Centennial Road Law.



His face a study and one hand wrapped around the book he wrote, Missouri highway pioneer Thad Snow gazes contemplatively into the middle distances and remembers other days.

An early-day Swampeast settler tells about one way roads were constructed in 'down yonder' country

There are pioneers, and there are those who follow them.

After the pioneers have done their work, those who follow usually refine what the pioneers created; they stabilize and consolidate and systematize it, to give it strength and permanence.

They are careful and methodical men, these refiners and stabilizers and consolidators and systematizers. Prudence is perhaps chief among their virtues. And like all the other artifacts of man, Missouri's highway system owes them much.

Much. But not all. For before anything can exist for them to build on, there must be a beginning made. And beginnings presuppose pioneers.

Like most pioneers everywhere, the pioneers of Missouri's 20th Century highway history were a colorful lot. They had imagination and optimism, daring and guts, style and verve.

One of Missouri's highway pioneers was an early-day Bootheeler named Thad Snow. He was a man of many parts, was Mr. Snow: Farmer, landowner, Mississippi County civic leader, author, seeker after a seat in the Congress. His day in the Missouri highway story came before the state and federal governments formed their historic partnership for roadbuilding, during the time when the task lay mainly on the counties.

In his book *FROM MISSOURI*, this transplanted Hoosier turned self-styled "devil of the Delta" tells, with gusto and pardonable pride, the story of how the people of Mississippi County tackled the job of building themselves some roads, and of the part he played in getting the job done.

The Bootheelers build

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All at once, when we were particularly optimistic — I think it was in 1918 — we became conscious of roads, and our lack of them. There was not an improved or surfaced road in the Delta. There is no describing what happened to our black-land roads in the winter, which is our season of heavy rainfall. The bottom dropped out. Four mules to a high-wheeled empty wagon would usually get you through, but not always. A few times our main roads were impassable for months, except for a saddle horse or mule that could skirt around the deepest holes. The sandy-land roads in a long dry summer cut too deep for a car, but never too deep for a wagon.

All at once we found out we just had to have roads. There was a good bit in the St. Louis papers about road building and about how other states, and even a few other communities in Missouri, were "pulling themselves out of the mud." Automobiles were increasing in numbers, even in the Delta where the number of days of the year in which you could drive them was severely restricted. So, suddenly every county in the Delta found it had to have roads. There was no collusion about it; the craze merely hit all the counties at about the same time. There was, however, much rivalry among the counties to see which would build the most roads first.

But how would we finance road building on top of all the rest of our insupportable tax burdens? It was easy. The Missouri legislature had also become road-conscious and it enacted a law permitting the counties to vote road bonds. People of the Delta counties knew all about voting bonds. We were used to it. We knew that by voting bonds we could build levees, ditches and roads right now, and pay later on. If we couldn't pay we still had the "improvement" and if we did pay, we paid twice, because interest on the bonds doubled the

cost. But interest on our debts commonly made us pay double for everything we bought and for clearing our land. We were used to it.

The federal Congress was road-conscious too and about this time enacted the first federal-aid road law, which, within certain limits, proposed to match state money with federal money on a fifty-fifty basis in the construction of roads located and designed to fit later into a proper state and federal road system.

The state of Missouri, unfortunately, had no road money to match the new federal aid grants on a fifty-fifty basis, or any other basis. However, the new federal road law and our new state road law made it possible for a county that was fool enough to vote road bonds to turn its bond money over to the state; then the state could use the county's money to match federal aid, and spend the whole amount on roads in the county that voted the bonds. These new legal developments were on the way, or an accomplished fact — I don't remember which — when the Delta counties set out to build roads. But we knew nothing about it. When we voted our bonds we didn't expect the state or the federal government to help pay for our roads. We expected the bond buyers of St. Louis to pay the whole bill. They had built our levees and ditches, so why not our roads?

I think I must tell something about our first adventure in road building. In my county we made a grand success of it. The other Delta counties did not do well at all. We made as bad a start as they did but caught ourselves up in time. I have had and will have had so much to say about the blind heedlessness in our pioneer ways that it is only fair to tell something of our road-building adventure, in which we used the soundest of judgment, and which worked out exactly as planned. My county now has the best system of roads of all the rural

CONTINUED

their own

"I suppose I talked to everybody

counties in Missouri. So give us our due.

Our road boosters — and we had a lot of them — launched a campaign for a county road bond issue. The amount of the issue was small, because our assessed valuation was low. The amount was \$250,000. I was for it. Pretty soon the campaign warmed up. We had lots of speakers to go to every little schoolhouse, and everywhere in the towns where voters could be got to listen. The crowds were good and everybody wanted roads; the speakers were well received until question time came, and then some old mossback was sure to ask how could he be sure he'd get his road built if he voted for them bonds. This embarrassing question came up invariably. Something had to be done about it.

The campaign committee went into a huddle and decided to publish a map that would show what roads would be built. Road costs were bound to be high. We had no road material except a few stone axes and arrowheads that the Indians bequeathed us. The question was whether to publish a map showing how many roads our little bond issue would actually build, and of course lose the bond issue vote, or have the map show the roads that ought to be built and make out that they would be built, and so carry the vote.

The committee men were all honest men but, at this moment, only in so far as honesty was the best policy for the purpose in hand, which was to carry the road bond vote. Over my protest the committee made the practical, and as it turned out, the wise decision. They went all the way and printed a map of the county with very nearly all

the roads graveled. Nobody could ask troublesome questions any more, because every road of any consequence was to be graveled. A little figuring, of course, showed that no more than a third of all those roads could possibly be improved from the proceeds of the little bond issue. I called this to the committee's attention but they said Mississippi County folks hadn't ever learned to figure the cost of anything, so why expect them to figure the cost of roads — a matter which they knew absolutely nothing about. The boys were right. The map made everybody happy and the bond vote went over with a bang.

However, on account of the map, I withdrew from the committee and took no further part in the campaign. There was no falling out. I wanted a road as passionately as anybody and was certain to get one, map or no map, but some odd quirk in my make-up would not allow me to promise what I could not deliver. I said nothing against the bond issue and I voted for it along with the rest. But I had misgivings, and everybody knew it, which turned out to be fortunate when later I deliberately set out to tear up that map, and persuade the people to spend all of that bond money and twice as much more besides on just two roads — one splitting the county from east to west, and the other from north to south.

It is a long story and I can tell only a little of it but I want to tell enough to prove that sometimes, in special circumstances and when time permits, people can exercise sound judgment based on mere facts and figures, with no trimmings and no propaganda. I know it amounts to a treasonous

and courthouse meetings, and I kept

in the county, mainly in schoolhouse

repudiation of the "American way of Life" at this moment to suggest that plain facts, rather than propaganda, make-believe and falsification, may be relied on to make people do what they ought to do. I am merely saying that in the matter of our first road building Mississippi County people did act with regard to unadorned facts.

Fortunately, on account of war and postwar readjustments, we couldn't spend our bond money for a year or more. By this time I had got my farming more or less organized so I could take time off. I suppose I talked to everybody in the county, mainly in schoolhouse and courthouse meetings, and I kept articles and comments going in the weekly paper. Very early I got the Charleston Chamber of Commerce behind me, including all the go-getters who had put over the bond issue and had printed the "promising" map — over my protest.

We had voted bonds to spread gravel on all the roads on that map, and such was the enthusiasm of the moment that almost everybody felt like the roads were practically built on the day they voted the bonds. They had a fine feeling of well-being, of progress, and of vast accomplishment. The setup was perfect for a total waste of the bond money.

After a suitable cooling-off period and after making sure of substantial support I proposed publicly that we forget the "map," and spend all our money and twice as much more besides on just two roads, and that we build them of concrete instead of gravel. Concrete roads then were almost brand new, I had seen one in Indiana and one in Michigan. Nobody else in the county had ever seen

one and few, I believe, had ever heard of such a thing. It was quite a shock!

My argument was as follows: If we spent all our money on these two roads and if the new State Highway Board, and the Federal Bureau of Public Roads, approved them, then we would have our money matched fifty-fifty with federal funds. Not only that, but if and when we voted a state gas tax (it was being talked about) then the Missouri Highway Department would take over our two roads as a part of the State Road System, and would refund to us every dollar we had spent on them. Whereupon we could go ahead and fill out our map. I cited a number of states that had enacted "refund" laws that provided for taking over roads and refunding to the counties "the value of the state of such roads at the time they were made a part of the State System." I said that Missouri would undoubtedly enact a similar law, if and when we voted a state gas tax; and that we must build only of concrete in order to be sure to get par value; that is, the exact amount we had spent. If we spread gravel it probably would be sunk in the mud and we would get no refund at all.

All this was somewhat complicated, and partly speculative. It required a lot of explaining. Beyond question it was the hardest job of my life. Later on when I ran for Congress I put in not one tenth of the time and energy on my campaign that I expended to overcome the magic of the road bond "map."

I'd like to report that no important opposition developed. Quite the contrary. The leader of the

CONTINUED

articles and comments going . . ."

'Never . . . have I undertaken anything of

south end of the county who was then our state representative, and a powerful man, fought me to the last. Once in a big meeting called by the county court he addressed the court and the assembled citizens, and told how on his own time and at his own expense he had investigated the whole matter of concrete roads, and had found out they would cut to pieces in no time at all under our kind of traffic. Our high-wheeled, narrow, steel-tired wagons that we would still have to use on our muddy side roads would cut deep ruts in the concrete just like a chisel, and the road would soon be dangerous for any kind of traffic. I couldn't very well disprove it then, but now I could, because many miles of our concrete roads built thirty years ago are still in use and in almost perfect condition. We soon quit using those narrow-tired wagons, though, so we may not have made a fair trial.

However, in spite of this and other opposition I was able to organize three Special Road Districts which, under a much older Missouri law, could vote road bonds up to ten per cent of their assessed valuation. These three districts cheerfully voted bonds, the proceeds of which we threw in with the money we already had from our county bonds. But we still lacked about \$150,000 of having enough funds to pay our half of the cost of those two main roads. Where could we get it? The law wouldn't let us vote any more bonds. Somebody said I'd just have to pass the hat for the last \$150,000. That was a lot of money in those days, and it is doubtful if there was that much unborrowed money in the whole county. But I did pass the hat and raised the money. I got a surprising amount of real money, but mainly I got notes which the banks bundled up

in the usual way and took to St. Louis for rediscount as usual, and our road fund got the money.

We built our two roads under the supervision of the new State Highway Department exactly as planned, and the Federal Bureau of Roads paid its half. In a couple of years the state voted a gas tax, and the Legislature enacted a new road law that gave us our money all back just as I had guessed (but not promised) that it would. We couldn't get our money back all at once, or in cash, but did get it in roads over a period of years.

By common consent, but with no official position, title or remuneration, I handled the county's road matters for the ensuing fifteen years; and I filled in the original preposterous "map" to everybody's satisfaction — so far as I know.

Never before or since have I undertaken anything of consequence that turned out so nearly as planned. It was almost uncanny. I should add that road bonds were all paid on the dot. The notes, unfortunately, were not, and I imagine that some of them are still stowed away, along with thousands of others, in the vaults of St. Louis banks.

I think I have told of this road-building episode mainly to give just credit to the people of my community for their exercise of restraint and judgment in a joint enterprise, which by its nature is more often plagued by the hasty procedures of "grab and get." Twenty years later, at the time of the roadside-sit-down-strike, I saw the same people consumed and blinded by mass hysteria. Then they looked and acted quite differently. But they were still the same people.

consequence that turned out so nearly as planned'

Men to match the needs

Do men make history, or does history make men? The question is of interest to scholars. It probably wasn't of much interest to the men who fashioned Missouri's highway system. Probably few of them even considered it a question worth thinking about.

It isn't that the men who created Missouri's highway system despised theory. Men who despise theory don't built things as big and complex as highway systems. They can't. But the theory that history makes men is remarkable for its passivity. And passivity wasn't a characteristic much in evidence among the men who were Missouri highway-builders in the first four decades of this century. Those men were big dreamers and big doers. They figured a lot and sweated a lot. They pushed and shoved. They were activists, in the best sense of that much-abused word.

They were a widely differing lot, the men who saw Missouri's need for a state system of roads . . . and matched it. But the few giants chosen here as representative of them all held some things in common: The vision to perceive that Missouri needed a state system of roads. The conviction that such a system could be built. The courage which gave that conviction meaning. The willingness to pay the price the courage cost. The ability to make the paying count for something.

The men who built Missouri's highway system knew it had to happen. Knowing that, they made it happen. They were the sort of men about whom history gets written.

If Missouri at the century's turn was not lacking in highway needs, it was not lacking either in men to match them. And all Missourians are richer now because it was so.



Men to match the needs



Governor F.D. Gardner

A wartime Missouri governor, Frederick D. Gardner envisioned the needs of a state and nation at peace. And he worked toward that vision.

When he was asking Missourians to elect him Governor in 1916, he pledged "to construct a vast system of good roads that will eventually bring thousands of tourists and millions of dollars into the state." In his inaugural address he called for a law creating a bipartisan State Highway Commission. Of the law and the commission he hoped to see, Governor-elect Gardner said:

"This commission should be given broad powers, including authority to select a state highway engineer and to pay such salary as would guarantee a man of high attainments and successful experience . . . Politics should not enter into road work, and the law should be accordingly drawn . . . Missouri must act at once to avail itself of the federal aid law . . ."

In 1917 the General Assembly enacted the Hawes Law. Another step closer to his vision, Governor Gardner said in his first biennial message: ". . . considering the amount of money available for the purpose, I am convinced that today we have on our statute books the best good roads law in the entire country . . ."

But for Governor Gardner that wasn't good enough. In 1918 he proposed a \$60,000,000 bond issue to be paid from automobile licenses. In 1919 he said "The building of a completely connected system of 6,000 miles of hard-surfaced roads, reaching every county of the state, should be undertaken at the earliest possible day. It is estimated that this would cost 60 million dollars . . . a small sum for this great state to invest and repay during the next thirty years."

The governor backed his words with deeds, throwing himself and the prestige of his office into the bond issue campaign of 1920. When the issue was approved, he asked the legislature in his second biennial message to enact the laws needed to carry out its purposes.

Missouri historian Floyd Shoemaker wrote: "Frederick D. Gardner was governor of Missouri during the World War period and while he was a model war executive he also achieved legislation of lasting peace-time value."

That value still lasts today.

Senator Harry Hawes

Harry Hawes loved Missouri. During his life he worked for his state many years — as a state representative, a member of Congress and as a United States senator.

But his name lives on in Missouri history on a law which established the official beginning of federal aid in Missouri highway building.

On July 11, 1916 President Woodrow Wilson signed the Federal Aid Act. It opened up a source of revenue for all states by providing that the United States should aid the states in constructing rural post roads.

Under Hawes' leadership, Missouri enacted a new road law in 1917. The law created a bi-partisan state highway board of four members and brought all road laws up to date. But most important, the Hawes Law accepted federal aid and put Missouri in a partnership that has developed the country's highways to their modern level.



Senator J.G. Morgan

In Missouri highway development Morgan goes with McCullough like Rodgers and Hart in show business because the law which bears their name marked a major milestone in the state highway history.

This law increased state highway system mileage, provided for state aid up to \$1200 per mile, allotted \$25 per mile per year for dragging roads connecting county seats.

Under the Hawes Law, the Department could not initiate road work but depended on counties and road districts to match federal aid. The McCullough-Morgan Law placed more authority in the hands of the Highway Board and called for surveying two roads through each county.

This meant more work — and expansion — for the Department. And it led to the establishment of what is now the district concept to provide administration on a local level.

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Men to match the needs



Alexander W. Graham

They tell a story over in Montgomery County about Dr. Robert Graham, who came to Missouri in 1816 and settled on a tract of land he bought from Daniel Morgan Boone, son of the legendary Dan'l.

They say Dr. Graham used to like to stand on a big rock well up toward the summit of Mineola Hill and look out over the Loutre Creek bottoms to the hills beyond. The place is called Graham's Rock. The view from there extends for miles. And everything Dr. Graham could see from the rock belonged to him. Or so the story goes.

A century after the redoubtable doctor put his family's name all over Montgomery County, a great-grandson of his added still more luster to it and spread its fame statewide.

The great-grandson was Alexander W. Graham. "Boss," he was called. As state highway engineer from 1917 to 1922, "Boss" was one of the men chiefly responsible for the start made on the tremendous amount of new highway construction provided for in the Hawes Law and the Morgan-McCullough amendments to it. The enactment of those laws triggered a building program whose scope and complexity were without precedent in Missouri's highway history to that point. To start that program on a sound basis, the leadership of a special sort of man was urgently needed. There was "Boss."

Somebody said that genius is the infinite capacity for taking pains. Graham had that, and much more besides. He gave generously of all that he had in the cause of good roads for Missouri. A stickler for accuracy, a bearcat for detail and a glutton for work, the man called "Boss" brought to his job the highest standards of personal rectitude and professional integrity.

Graham and his work fashioned the mold in which many Missouri highway engineers since his time were cast. The numbers of those men are legion now. And there are giants among them. But of all the names enrolled on Missouri's highway scroll of honor, none looms bigger than that of "Boss" Graham.

He was one of the first. And he was one of the best.

Theodore Gary

This native Ohioan left an enduring mark on Missouri and its highways through his service as first chairman of the State Highway Commission.

In 1921 Governor Arthur Hyde appointed Gary chairman of the State Highway Commission where he served until he resigned in November, 1926.

This period covered the Commission during its first five years of existence while the Department was in the process of formation and during the initial period of road progress under the Centennial Road Law of 1921.

"Missouri owes an especial debt to Theodore Gary," wrote Floyd Shoemaker in *MISSOURI AND MISSOURIANS*, "for the efficient, straightforward manner in which he directed the affairs of the State Highway Commission."



John Malang

Courage, vision, good judgment and hard work. These are the qualities that earned John Malang the right to be called the "Father of the Good Roads Movement" in Missouri.

The McCullough-Morgan Law of 1919 provided for the appointment of a state superintendent of highways who also would be ex-officio secretary of the Highway Board.

The choice was easy — John Malang.

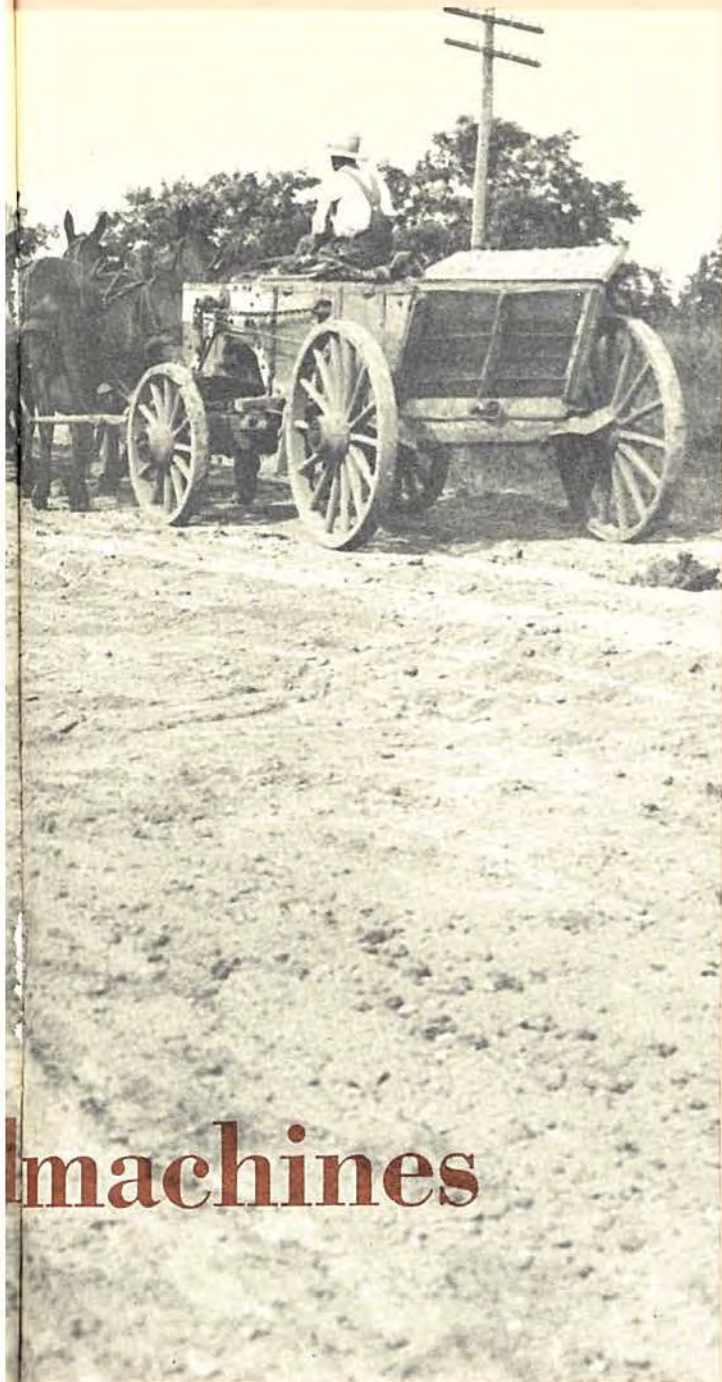
Malang started his highway work in 1914 as superintendent of the Joplin Special Road District. Here he built the first concrete road on the state system. Federal Aid Project No. 2, it was called, and it ran from Webb City to the Kansas line.

Later it would become part of the highway called the Kickapoo Trace, the Wire Road — and Route 66 and Interstate Route 44.

He rose rapidly to leadership in good roads movements, all the way insisting on an equitable and balanced road financing and construction program.



Mechanization was a spotty and a sometime thing during the years when Missouri's early roads were built. Often in those days, the motive forces were brute strength and the strength of brutes. It was a matter of muscle.



machines



Coming fast, a Missouri motorist of the '30s passes a Highway Department asphalt distributor.

**This is the way
it used to be
on Missouri's highways**

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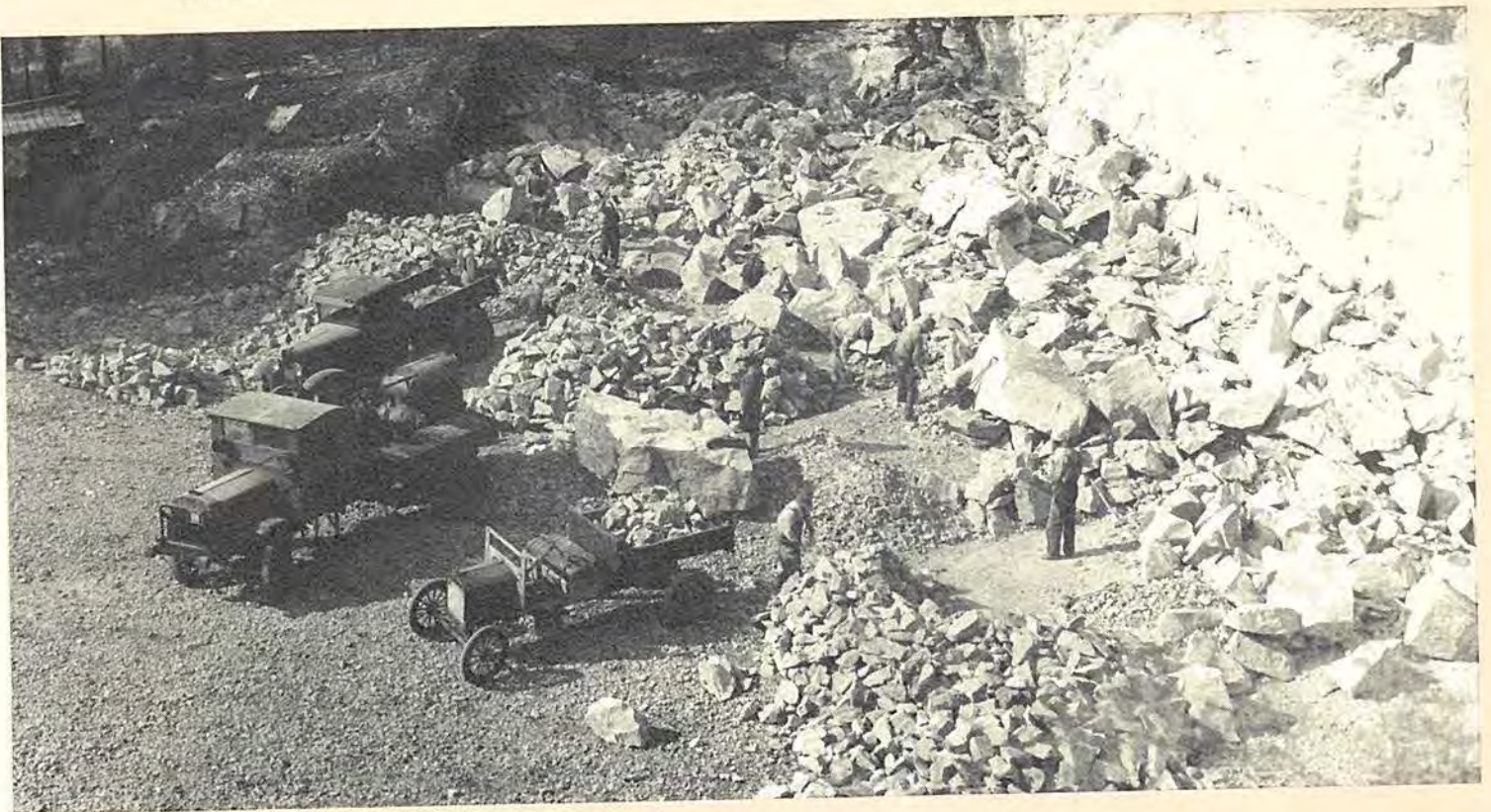
Men, mules, and machines



Building and maintaining roads is a vastly complicated process. But at one stage or another in the work, one thing always is involved — moving dirt.

From its smokestack up front to the Casey Jones position of its driver's seat, this 1930s striper is strangely reminiscent of one of the big steam locomotives of the same era.

Quarrying operations are more sophisticated today than they were in the Twenties. Then as now, though, one of the prime objects was to make little ones of big ones.

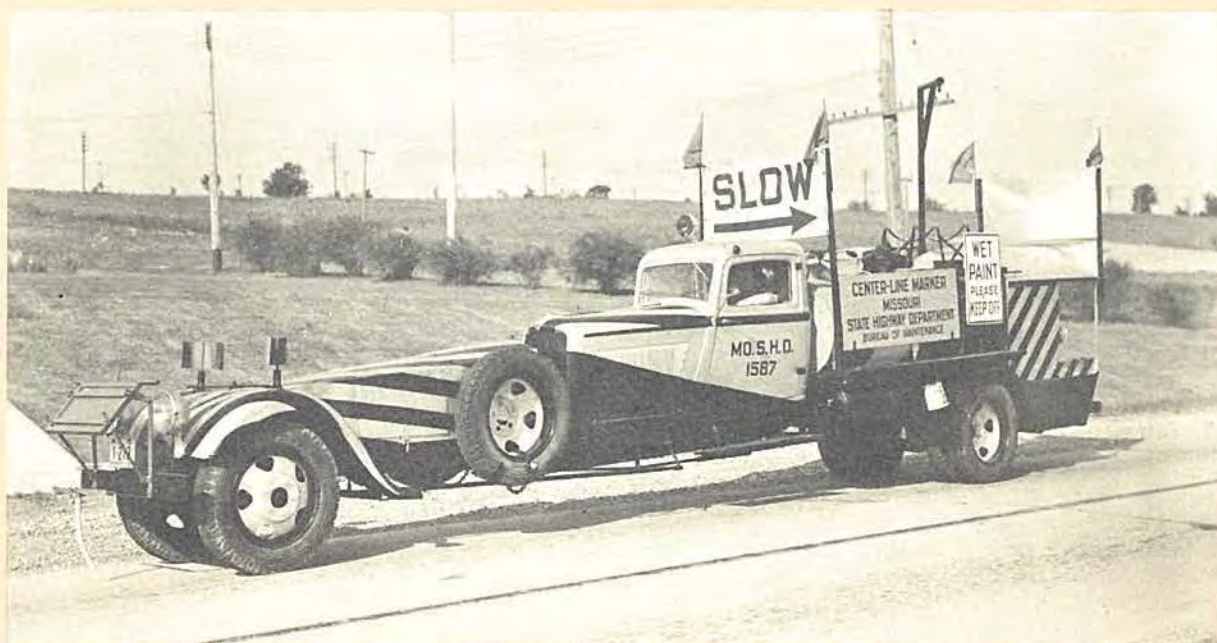




Way back when, mowing operations had to be cranked up literally as well as figuratively. And in those days, it was hard for the driver and the mower to look at things the same way.

The clatter of equipment like this helped make the Twenties and the Thirties roar.

Designed and built by Highway Department people, this formidable looking centerline marker moved majestically over Missouri roads and highways — applying paint to asphalt and concrete — laying down a stripe which separated yesterday from tomorrow.



*Time was, way back when,
when many of the nation's
most famous cars were*

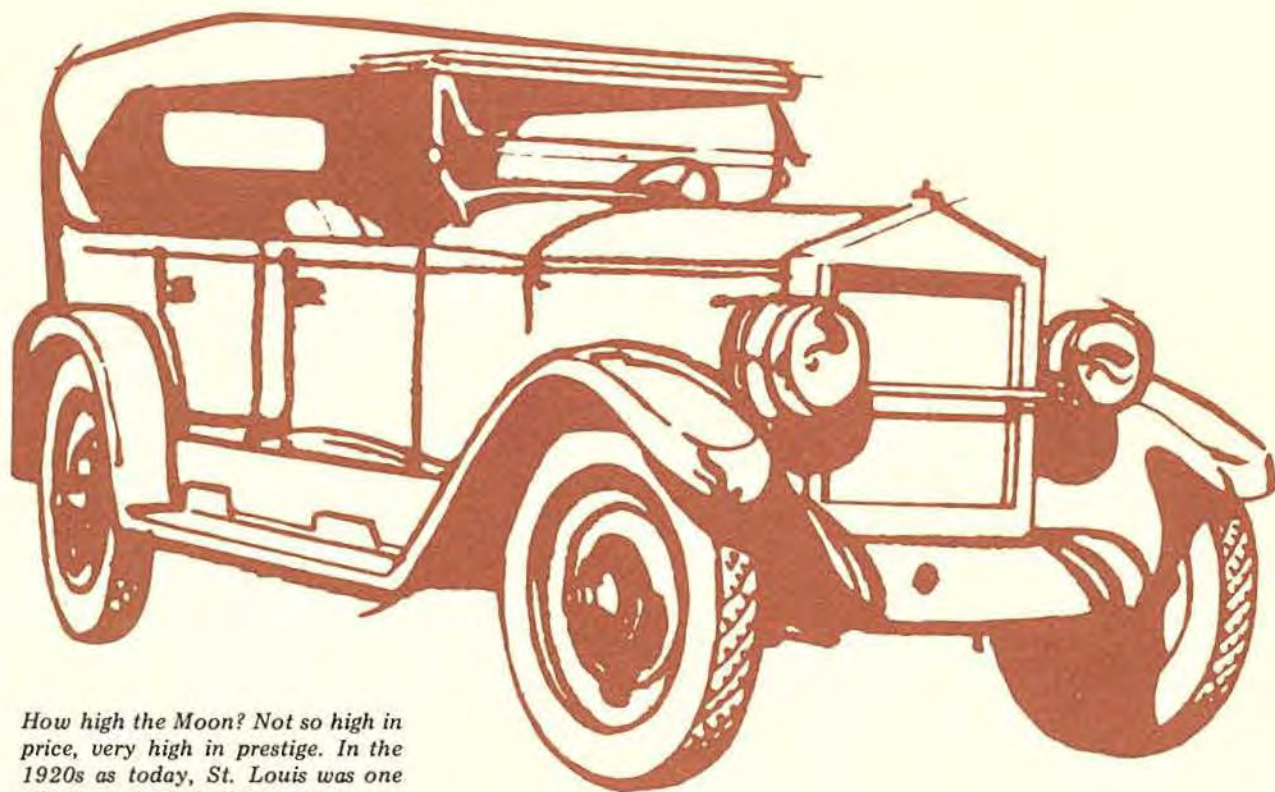
Made in St. Louis

The storied St. Louis World's Fair gave the world the hot dog and the ice cream cone in 1903. Two years later a St. Louisan named C. H. Laessig gave the world its first service station for cars, pumping gasoline through a garden hose.

By then other car makers had followed J.D.P. Lewis' "horseless carriage" onto the scene. And before the 1900's were very far along, St. Louis had become one of the premier car producing centers of the nation.

From here shone the fabled Moon. From here came also the Dorris, the Ruxton and the Windsor. And there were still others. About two dozen.

Most of the St. Louis-built cars of the Teens and Twenties have chugged and clattered their way into the mists of memory. But their emergence and their passing left a colorful trail along Missouri highway history, a trail re-traveled here by Harry N. D. Fisher in the ST. LOUIS COMMERCE magazine.



How high the Moon? Not so high in price, very high in prestige. In the 1920s as today, St. Louis was one of the nation's leading auto manufacturing centers. And in the '20s, the Moon was one of the big reasons why.

From the earliest days of the American automobile industry, St. Louis — now second only to Detroit in this field — has been a center of vehicle manufacture.

The throaty-voiced, 20-horsepower Moon 6 and its exotic stablemates, the Diana 8, Ruxton and Windsor; the beep-sounding Dorris, and the sleek Gardner with its distinctive griffin radiator ornament are but a few of some 30 automobiles that were made in St. Louis.

Names of the others? Most are now forgotten, but among them were the St. Louis, Eureka, Clymer, Scott, American Morse, Darby and Champion. Some "manufacturers" operated little backyard shops and made only one or two cars, others turned out several and quit. Mergers were frequent.

The first horseless carriage in St. Louis was built by J. D. Perry Lewis in 1893. An electric vehicle, it ran as fast as eight miles an hour. A \$1500 larger model that Lewis built a year or so later ran into trouble in the 3000 block of Locust street one night. The axle broke and the batteries fell out.

Lewis obtained automobile license No. 1 in 1902, but it was not the first auto license plate in St. Louis. That was No. 67, issued to Dr. E. V. Dittlinger, who had built his own car.

The first automobile factory in St. Louis, the St. Louis Motor Carriage Co., at 1230 North Vandeventer avenue, was founded in 1898. It made the single (and later double) cylinder St. Louis Car, which in 1901 carried the first unit power plant. George P. Dorris owned the patent. When the company and its popular Boston model car moved to Peoria in 1905, shortly after making the first side-entrance car, Dorris resigned to found the Dorris Motor Car Co., which made the famous Dorris here until 1926.

In 1898 Ashley Scott and Semple S. Scott built an eight-passenger electric bus, which they later rebuilt and operated as a public carrier — St. Louis's first bus — on Olive street between Sixth street and Boyle avenue. In 1899 they built an electric run-about so good that they could run it all the way to the country club in Clayton and back downtown on one charge of the batteries.

H. F. Borbein & Co., 1112 Cass Avenue, was the first U.S. manufacturer of automobile axles, wheels, chassis and bodies for the trade (1899).

Also in 1899, A. L. Dyke of St. Louis established the country's first automobile supply



1929 WINDSOR

house. "Dyke's No. 1 outfit" (an early day do-it-yourself kit) consisted of engine, transmission, axles, wheels, steering device, radiator and other parts. He also sold appropriate "motoring clothes."

A person thoroughly dressed in such apparel for the rigors of the road was "all Dyked up." Today the expression is "all decked out."

The first American-made float-feed carburetor — still used in principle in contemporary engines — was invented in St. Louis by George Dorris and his sales manager, A. L. Dyke. An original model of the carburetor is displayed at the Smithsonian Institution in Washington, D.C.

St. Louis's first independent auto repair shop was opened by Charles A. Marien in 1902. Three years later Marien became manager of the automobile department of Anheuser-Busch, Inc., when the brewery became the first local company to replace horses for heavy hauling with a fleet of trucks. Initially there were 28 trucks in the fleet, 27 electric and one gas.

The Automobile Club of St. Louis was formed in 1902 with G. H. Walker as the first president. The club was instrumental in securing legislation in 1907 raising the Missouri speed limit from nine to 15 miles an hour.

The world's first gasoline station was started in 1905 in St. Louis by C. H. Laessig on Theresa avenue. Gasoline was delivered through a garden hose. Before then, gasoline had to be purchased by the can at grocery stores.

Dorris brought out the world's first valve-in-

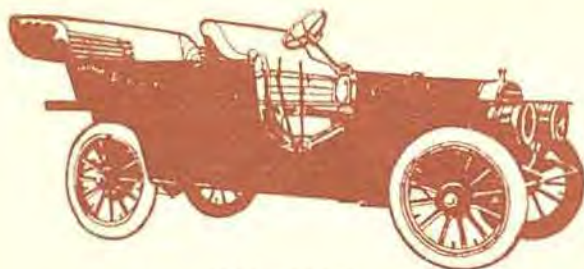
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Then as now, St. Louis was one of the nation's car capitals

head engine. In 1907 his new four-cylinder car was driven all the way to DeSoto, Mo. — 47 miles — in high gear, an unheard-of accomplishment.

John C. Higdon built St. Louis's first light air-cooled engine in 1907. It had one speed forward with chain-to-rear wheels drive. In all, Higdon built 980 cars here.

While these St. Louis "firsts" are interesting, no account of early St. Louis-made cars would be complete without mentioning Ford and Chevrolet, which were being built here before World War I — and still are today.



1909 DORRIS



1927 GARDNER

And some tribute must be paid two St. Louis auto manufacturers, Moon Motor Co. and Gardner Motor Co., whose fine cars were as well known in the 1920's as Fords, Chevrolets and Plymouths are today.

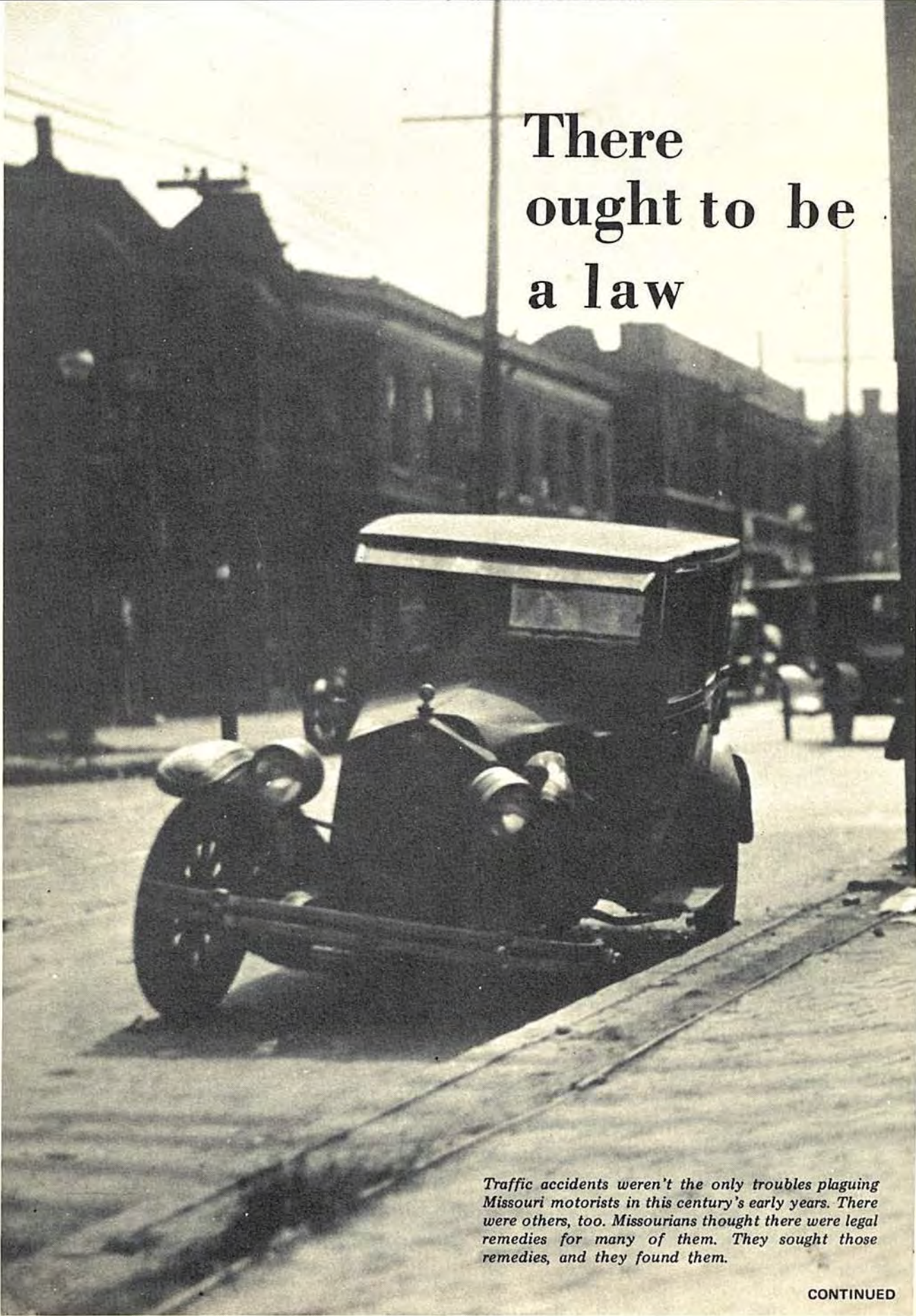
The Moon company, founded in 1907 by Joseph W. Moon, had its factory at Main and Cornelia streets and turned out cars with square radiators like the Rolls-Royce. The firm made the six-cylinder Moon and an eight-cylinder companion car appropriately called the Diana. It also assembled two luxury autos, the famous Windsor "White Prince Phaeton" and later the frontwheel drive, English-styled Ruxton.

Moon got into financial and legal difficulties and by November, 1930, was in receivership. Eventually, the Moon company's realty was sold to the Cupples Co. — for the making of matches.

Gardner Motor Co. was established by Russell E. Gardner Sr. in 1919, after he sold his franchise for the manufacture of Chevrolets to General Motors Corp. His factory at First and Rutger streets made more than 100,000 autos in the decade it flourished. The firm became a victim of the depression and folded in 1930, but not before its "Gardner Griffin" symbol had become one of the best known auto emblems in America.



1929 RUXTON



There ought to be a law

Traffic accidents weren't the only troubles plaguing Missouri motorists in this century's early years. There were others, too. Missourians thought there were legal remedies for many of them. They sought those remedies, and they found them.

CONTINUED



Missouri near the beginning of the motor age: The cars were coming, and the kind of roads they needed to travel on didn't exist. Something had to be done. Something was.

LAW

Landmark legislation lays a firm foundation for the revolution of the roads

In 1903, the year that the storied Wright brothers got off the ground at Kitty Hawk, 640 automobiles were "flying" around Missouri. Some of them were going so fast that Missourians deemed it proper to enact the state's first speed limit law. It stated, among other things, that no automobile was to be driven on the public highways of Missouri at speeds in excess of nine miles per hour.

By 1940 the speeds at which cars were moving over Missouri highways had changed so drastically that the phrase "mile a minute" sounded old-fashioned and a little quaint. And in that year, the vehicles registered in Missouri totaled more than 921,000.

What happened on Missouri's system of highways during the first four decades of the 20th Century? A revolution. How can a revolution be chronicled? There are many ways. One of the most popular is to explain it in terms of legislation, to

tell what happens when people, vexed by enough problems, say "There ought to be a law" so that there get to be some.

There are difficulties implicit in this kind of story-telling. One of the big ones is the fact that laws are simultaneously the results of some conditions and the creators of others, simultaneously effects and causes. But where there is no orderly structure of laws within which to do public business, there is likely to be little public business done at all. So, much of the spectacular story of Missouri's revolution of the roads can be told by reference to the series of legislative enactments by means of which the people of Missouri, acting through their General Assembly, laid the firm foundations on which has been built the Missouri highway system of today.

Here is the outline of that story, the story of the results achieved by people who believed "There ought to be a law."



1903 The state's first speed limit law fixes the top speed for cars at nine miles per hour. It provides also that before an automobile can attempt to pass any vehicle, carriage or wagon drawn by animals, its operator must sound a bell or whistle and if necessary, stop his car so the driver of the other vehicle can alight before his animals become frightened and run away.

An annual license fee for the operation of motor vehicles in the state is fixed at \$2. Proceeds from it are paid into the counties' general road funds.

1905 The General Assembly taxes private railroad cars operating in Missouri. Proceeds are apportioned to the counties, which give them to their townships for use in the construction and repair of public roads and streets.

1906 The State Board of Agriculture spearheads a movement seeking state participation in road matters. Meetings are held across the state. Governor Joseph Wingate Folk calls a good roads convention in Chillicothe. Thousands attend.

1907 Missouri newspapers and good roads groups increase the popular demand for state legislation. The threat is voiced that unless better

roads are provided, free rural mail delivery service may be discontinued. Governor Folk calls for road legislation in his message to the 44th General Assembly.

The Legislature creates the office of State Highway Engineer and makes him responsible to the Board of Agriculture, which becomes in effect the state's first highway commission. Curtis Hill is named to the newly created post. But the initiative in matters concerning highways still rests with the counties. Under the terms of the law, Mr. Hill can do little but advise county officials, help them in planning and act as a public relations man for good roads.

Another law creates a State Road Fund, made possible by a federal appropriation of about \$500,000 in payment of a Civil War claim. The money is distributed among the counties, with no county to receive more than 5 percent of the total. The funds are to be used for construction or improvements, not to purchase right of way.

Another law provides for state compensation to counties for dragging public roads. The rates of state pay to the counties are not to exceed \$10 per mile on United States mail routes and \$5 per mile on other roads.

An annual appropriation of \$6,000 is established with which to pay the State Highway Engineer's \$2,400 yearly salary and all other expenses of his office.

Other laws increase the speed limit to 15 miles per hour outside the cities and require that all motor vehicles and drivers be registered. The fees are set at \$5 and \$2 respectively. Each driver is required to wear a numbered badge "upon his clothing in a conspicuous place at all times" while driving.

1913 The 47th General Assembly creates a State Highway Department. It eliminates the office of State Highway Engineer and relieves the Agriculture Department of its responsibilities in highway affairs. A State Highway Commissioner is provided for, and his salary is fixed at \$3,000 a year. His duties are largely advisory and of a public relations nature.

Registration fees which vary with the horsepower ratings of the vehicles involved are introduced.

County and state authorities, acting together, are empowered to designate selected inter-county seat highways as "state roads." These are to be inspected annually by the State Highway Commissioner, and the State Highway Department is authorized to furnish tools for use in their construction.

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The need is urgent; the ways are found

1916 Congress passes the Federal Highway Act. It makes federal appropriations to the states on the basis of their areas, populations and postal road mileages. The states are required to match the federal funds provided and to follow the construction and maintenance specifications set by the Bureau of Public Roads of the United States Department of Agriculture.

1917 The Hawes Law gives Missouri's assent to the Federal Highway Act, and the modern era in Missouri highway building begins. The law is named after State Representative Harry B. Hawes, under whose leadership it is enacted. Later, Mr. Hawes is to become a member of the Congress and a United States Senator from Missouri.

The Hawes Law creates a bipartisan four member State Highway Board, which is empowered to appoint a State Highway Engineer. The Engineer and the Board are required to select and designate not less than 3,500 miles of "state roads." These are to be distributed among the several counties in proportion to their respective areas, populations and mileages of county roads. They are to be uniformly marked, and their rights of way are to be a minimum of 40 feet wide.

The law creates a state road fund. It is built from vehicle registration fees, corporation registration fees, federal money paid to the state under the terms of the Highway Act of 1916 and from miscellaneous other sources. Out of the state road fund are paid the administrative expenses of the Highway Department, the sum necessary to match the federal appropriation, \$400,000 biennially to underwrite state payments of \$15 a mile for dragging and otherwise improving inter-county seat highways, and another \$400,000 with which to help counties, townships and road districts in constructing roads and bridges.

The Hawes Law provides the impetus for a tremendous spurt in Missouri roadbuilding. In 1917 alone, 122 projects are approved under its

terms, and 43 counties put 61 projects under contract. By year's end, more than 11,400 miles of inter-county seat roads are dragged and otherwise improved.

1919 The Morgan-McCullough Act attaches extensive amendments to the Hawes Law. It states "that there shall be expended by the State Highway Board on . . . state roads in each county totaling approximately 6,000 miles the sum of \$1,200 per mile without cost to the county and out of funds allocated from the federal government and such state road funds as are available."

Under the terms of the act, the total cost of all



surveys and plans cannot exceed an average of \$100 a mile. This survey and plans cost is to be included in the \$1,200-a-mile figure allocated for construction. The act authorizes the counties to award contracts for all construction.

As a result of the passage of the Morgan-McCullough Act, each county in the state is guaranteed at least two state roads including not less than 50 miles on which state and federal funds are to be expended. No county is to receive more than one such road until all counties have been provided with one.

To meet costs of the new roadbuilding not provided for by the Morgan-McCullough Act, the

counties find it necessary to vote bonds. These county bond campaigns begin in the last half of 1919, and the State Highway Department participates in many of them.

1920 Not all of the county road bond campaigns are successful, and it becomes apparent that road revenues are going to be insufficient to carry out the plans made under the Hawes Law and the Morgan-McCullough Act.

Under the leadership of State Highway Superintendent John A. Malang, the Highway Department assumes the leadership in a state-wide educational and fund-raising effort to "Get Missouri Out

CONTINUED

Much of the early roadbuilding done in Missouri in the Twentieth Century was an uphill battle. The mud was deep. And the ruts ran all the way to the top of the hill.



Multimillion dollar bond issues fuel a tremendous surge forward in Missouri highway building

of the Mud." Passage is sought for a constitutional amendment which will authorize the sale of \$60 million in state road bonds.

The constitutional amendment is approved. It provides that all motor vehicle registration fees collected in the state will "stand appropriated without legislative action for and to the payment of the principal" on the bonds. (Nine months after approval of this amendment, the adoption of another constitutional amendment authorizes the use of motor vehicle fees to pay interest on the bonds.)

1921 In Missouri's 100th year of statehood, the General Assembly passes the Centennial Road Law. The law shifts the focus of Missouri highway building from the local to the state level. It is to remain fundamentally unchanged from the time of its passage to the outbreak of World War II, and it is the rock-solid foundation on which the whole of Missouri's modern highway system is destined to stand.

It provides for a bipartisan State Highway Commission, a Secretary, a Chief Engineer, a Chief Counsel, and "such assistant engineers and other employees as the Commission may deem necessary." It gives the Commission comprehensive and discretionary powers to locate, design, construct, and maintain a "state highway system." The system is to include about 6,000 miles of secondary roads and about 1,500 miles of primary roads. Construction of the system is to be started in all counties as nearly at the same time as possible, and is to be carried on simultaneously in all the counties. Each county in the system is apportioned \$6,000 a mile.

To provide for the construction and maintenance of the state highway system, the Centennial Road Law empowers the State Highway Commission to make the rules governing its own organization, to compile highway statistics, to prepare

plans and make estimates, to let all contracts, to prescribe uniform highway markings, and to purchase or lease land. The law states that the Commission "shall have supervision of highways and bridges which are constructed, improved, and maintained in whole or in part by the aid of state moneys, and of highways constructed in whole or in part by the aid of moneys appropriated by the United States government, so far as such supervision is consistent with the acts of Congress relating thereto."

1922 An amendment to the Missouri Constitution allows money collected from registration fees in excess of that required for paying road bond interest and principal to be used for highway maintenance and construction.

1924 The initiative petition is used to put onto the ballot proposals "that a license of two cents per gallon be levied upon fuels used in motor vehicles upon the public roads of this state; that the annual motor registration fees be increased by fifty per cent; and that the . . . unsold portions of the sixty million dollars in road bonds should be sold prior to the times previously authorized by law."

The three proposals are grouped on the ballot as Proposition Number 5. The State Highway Department campaigns hard for Proposition 5, as do the state's various good roads associations. The voters approve of the proposition by a margin of more than two to one.

1928 Another amendment to the State Constitution authorizes the issuance of \$75 million more in road bonds. The amendment also provides for the improving and maintaining of the primary and secondary roads already in existence in the

state, and for the constructing and maintaining of new roads and bridges . . . including traffic relief roads near the state's metropolitan areas, supplementary and connecting roads, and roads and bridges in State Parks.

The Constitutional Amendment enacted in 1928 makes it unlawful for any state official or agency to divert highway revenues to other-than-highway purposes. Missouri becomes the first state in the nation thus to protect and earmark its highway revenues.

1931 The Missouri State Highway Patrol is created "to police the highways constructed and maintained by the Commission; to regulate the movement of traffic thereon; to enforce thereon the laws of the state relating to the operation and use of vehicles on the highways; to enforce and

prevent thereon the violation of the laws relating to the size, weight and speed of commercial motor vehicles and all laws designed to protect and

safeguard the highways constructed and maintained by the Commission." Members of the State Highway Patrol are authorized to "arrest anyone violating any law in their presence or . . . any fugitive from justice or any felony violation," and to "make investigations concerning any crime of any nature."

1937 It becomes unlawful for "any person of Missouri" to drive any motor vehicle on any highway of the state without either an operator's or a chauffeur's license.

The mists over the building of Missouri highways were clearing. As they did, they revealed a maintenance problem, and one that was to grow.



Missouri's pioneer highway engineers

*They measured the extent of the need.
They mapped a way out of the morass.*



Where they

Many were the pioneers in Missouri's Twentieth Century revolution of the roads. There were the businessmen who saw the economic needs for roads. There were the farmers who saw the need for breaking the mucky stranglehold of mud which bound them to the farm lot. There were the politicians who heard the voices of the voters.

And there were the men who came to build these roads for the people.

Man and need met in Missouri — and none of the three ever was the same again. As James Jenkins Jr. described it:

"And then one bright day a man came over the hill wearing a flannel shirt, faded khaki pants, and a don't-give-a-damn hat with the brim pushed back. On his shoulder he carried the key to change — a transit."

Missourians generally welcomed these men in their "d — g — a — d" hats. But not always, because change has opponents.

Rex Whitton, former Missouri Chief Engineer and later federal highway administrator, remembers the unwelcome sight of the business end of a shotgun. The farmer on the other end wanted "no truck" with the likes of the "pioneers" in Whitton's survey party.

And B. H. Piepmeier, an earlier day chief engineer, recalls an encounter with a Missouri farmer who made his point without a shotgun:

"I got stuck in a mud hole near a large farm house on the Jefferson City-Fulton road and went to this farm house for help," Piepmeier said. "I can't recall the farmer's name but I well recall he told me, 'If you are the highway engineer from Jefferson City, you get out the best way you can.'"

It's true about prophets sometimes. Sometimes they really are without honor in their own country. Mostly, that doesn't stop them from being prophets. Mostly, it doesn't even slow them down.

Neither Mr. Whitton nor Mr. Piepmeier was stopped or slowed down. And neither was the rest of the hardy and far-sighted breed they typify.

They were the engineers of the fledgling Missouri Highway Department. They started out as chainmen. Or rodmen. Or laborers. There were

walked, roads followed

only a few of them. Only a very few. But they had a big dream. And they had the bone and muscle and mind and heart to fashion from it some roads for Missourians to travel on. Dirt roads at first. Then roads of chat and gravel. Then narrow slabs of asphalt and concrete. Then slabs that weren't so narrow.

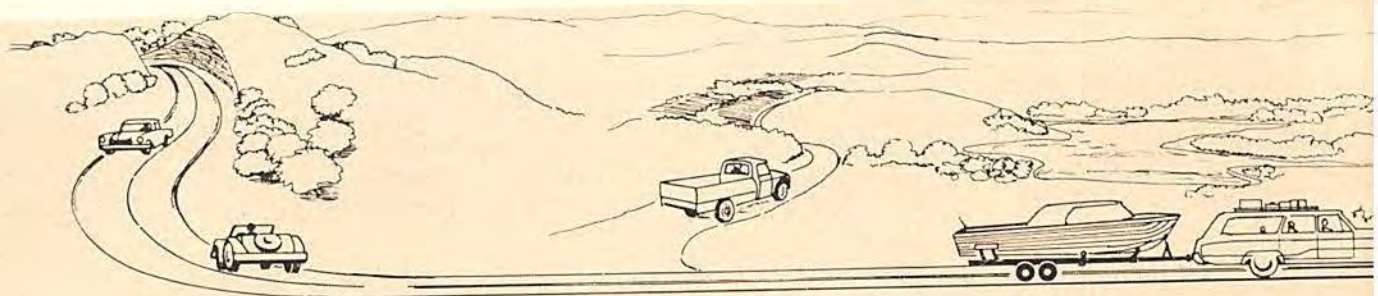
They walked all over Missouri, these pioneer highway engineers. And where they walked, roads followed them. And things weren't the same after that. Not for any of us. Not ever again.

They carried a key to change — a transit. Using it, they unlocked a better future for all Missourians.

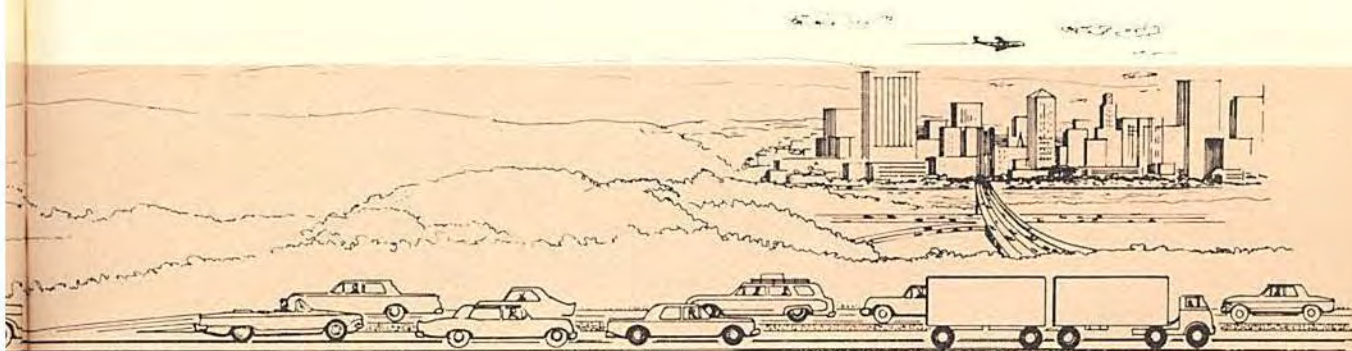
Before their coming, this great state was fragmented. Missouri was many different places, Missourians were many different peoples. And the blessings of our diversity were not unmixed. We knew each other, but not as neighbors. We communicated with each other, but slowly and expensively, so only rarely. We trusted each other, but mostly in the way people trust strangers.

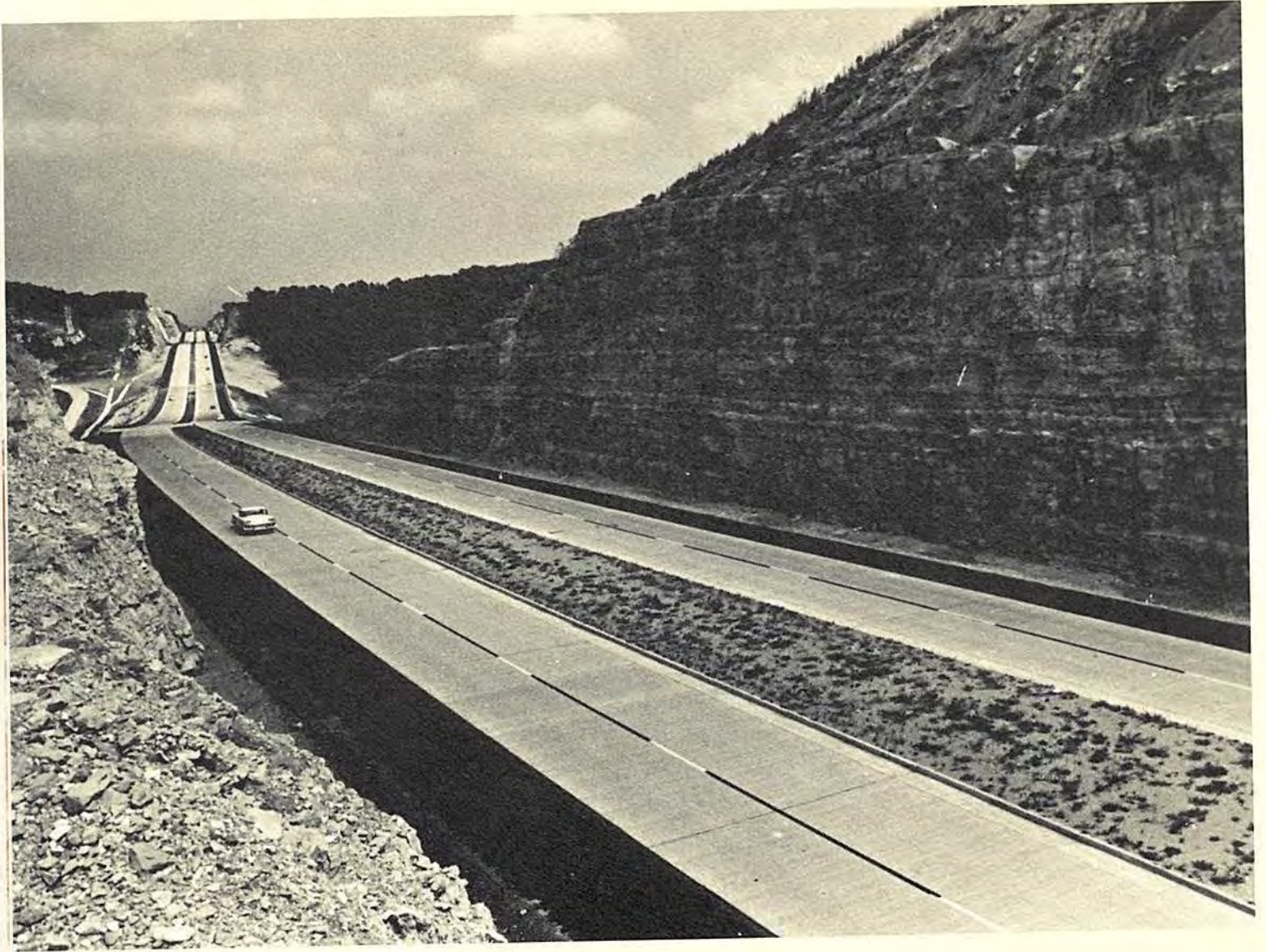
All of that was yesterday. The highway engineers helped to make it yesterday by building roads into tomorrow.





The Modern Years





The end is not yet

MISSOURI MOVES. Mostly on roads. That's the way it was in the state's earliest beginnings. That's the way it is today. That's the way it has been throughout Missouri history.

World War Two ended Missouri's first revolution of the roads — and triggered its second. The conflict's awful fires lit the need for a whole new system of highways. The conflict's massive marshaling of resources and energies gave that new system its first impetus on the long, hard journey from dream to deed.

The new system of highways was the one called Interstate. Missourians were the first roadbuilders in the nation to start on its construction. Missourians have been among the leaders in the doing of the massive roadbuilding tasks it imposes. And during the years in which they tackled the massive Interstate, Missourians added a whopping 12,000 miles of Supplementary roads to their state's system of highways — among other things.

This book attempts to tell something of how it all happened, from the post-war Forties down to the present.

But the present is not the end. The end is not yet.

Prodigious amounts of roadbuilding have been done in Missouri since the wilderness days of the 1700s. They have not been enough. Missouri's highway system has grown very fast and come very far since those wilderness days. The demands imposed on it by a soaring population and an effervescent economy have grown even faster and come even further. How well those demands are met — now and in the years ahead — will determine in critical measure the adequacy of Missouri's responses to the bright and exciting challenges of its future.

Because Missouri moves. Mostly on roads.

Interstate

IN THE BEGINNING, what was Interstate?

A dream. A hope. A yearning after something better. A bold hard certitude in the minds of men of vision that the major cities of the Republic could be tied together by a network of four-lane divided highways built to standards of excellence never before achieved.

In the building, what has Interstate been? The biggest, most demanding construction project in the history of humankind:

Enough dirt moved to bury the state of Connecticut — knee deep.

Enough concrete for 80 Hoover Dams; enough tar and asphalt for 35 million driveways; enough steel for 170 Empire State Buildings; enough culvert and drain pipe for the water and sewer systems of six cities the size of Chicago.

Enough sand and gravel and crushed stone and slag to build a wall nine feet high and 50 feet wide around the world at the Equator.

Enough materials used and enough men and machinery working to make a construction project 35 times as large as the Panama Canal, the Grand Coulee Dam, and the St. Lawrence Seaway — combined.

What is Interstate today?

Incomparably the world's greatest highway network. A coast-to-coast and border-to-border arterial system for the nation's Mainland body through which courses the lifeblood of a powerful and peripatetic people.

Put down the gas pedal and go. Cruise easily at 50, 60, 70 miles an hour. No cross traffic. No vehicles coming at you. No stop signs. No left turns. Just speed and convenience and safety. From sea to shining sea.

The road stretches out ahead of you, wide and beckoning, clear to the horizon's edge. And the going is good all the way. The exit-ramps whip past you as you go, and the towns reaching out to meet them look prosperous and new. The roadside restaurants are clean and attractive, the roadside rest areas green and inviting.

And America is beautiful. And to travel across its length and breadth is easy now — far easier than it's ever been before.

So you go. And so do your neighbors. And people pretty much like you who live three states over — or two states up — or half a continent away.

It doesn't stop, this distinctively American kind of travel — this familial "taking of trips." Americans want to see what their rivers look like when they reach the sea, what their mountains look like from the other side, what the lights and the buildings look like in the fabled American cities they have never visited. And they do.

And in the course of all these comings and goings across a continent's face, Americans talk to each other, discover each other, learn about each other. And as they do, a bad kind of sectionalism goes out of most of us, and the nation becomes more truly one.

Near the crossroads of all this continent-shrinking and civilizing travel to and fro stands Missouri — born of the East to be Mother to the West.

The story of Interstate in Missouri is the story of Interstate everywhere in microcosm.





Telephoto trickery makes these grades on I-44 look steep. They're not. The picture is illusory.





Two decades of prescient planning formed Interstate's firm foundation

In August 2, 1956, Missouri became the first state in the nation to let contracts for work on the newly authorized Interstate system. A few weeks later, work was started on one of those projects, and Missouri became the first state in the nation to begin Interstate system construction.

The three history-making contracts awarded at the August 2 meeting included one on what was to become I-44 in Laclede County and two on what was to become I-70 — one in the City of St. Louis and the other in St. Charles County. It was on the St. Charles County project that actual construction first was begun, and that work marked the beginning nationwide of the mammoth Interstate construction job — incomparably the biggest in all of history.

Rex M. Whitton, who was Chief Engineer of the Missouri State Highway Department and President of the American Association of State Highway Officials when the Interstate construction program began in 1956, said this recently about the fast start Missouri was able to make on its share of the Interstate work:

"We could see all through 1954 and 1955 that Congressional interest in some kind of comprehensive and adequately financed Interstate program was building steadily. When no legislation authorizing such a program was enacted by the 1955 session of the Congress, we felt pretty sure that the authorizing legislation would come in 1956. We tried to be ready in case it did. When it came in 1956, we had all our preliminary work for our first three Interstate contracts taken care of and we were ready to award the contracts themselves very fast."

That's how Interstate started — in Missouri. But that wasn't the start of the Interstate story. That story had its beginnings about twenty years earlier —

Thomas H. ("Chief") MacDonald, long-time head of the federal government's Bureau of Public Roads, was the sort of man around whom legends grow. The stories about this giant among early-day roadbuilders are legion. One of them concerns something President Franklin D. Roosevelt is supposed to have said to MacDonald back in the 1930s.

The way the story goes, President Roosevelt called MacDonald into his office one day, drew three East-West and three North-South lines on a

map of the United States, and handed the map to "The Chief" with the comment "This is your Interstate system."

The story may be apocryphal. That it exists at all indicates that the Interstate system as we know it today is the product of foresight and planning which go back many years. The date of President Roosevelt's much-quoted comment to MacDonald — if it was made — isn't known. But in 1938, the Congress ordered the Bureau of Public Roads to investigate the practicability of building six coast-to-coast and border-to-border highways, and of operating them as a self-sustaining toll roads system.

The study Congress ordered was made by the Bureau with help from the highway departments of the several states. The study's findings were reported to the congress in 1939, and were printed by the Government Printing Office in that year in an interesting little book called "Toll Roads and Free Roads."

The report's main conclusions were that the building of the system of toll roads was "not feasible," but that about 26,700 miles of inter-regional highways should be built, with the federal government paying more than 50 percent of the cost — the share which it had usually paid to that time.

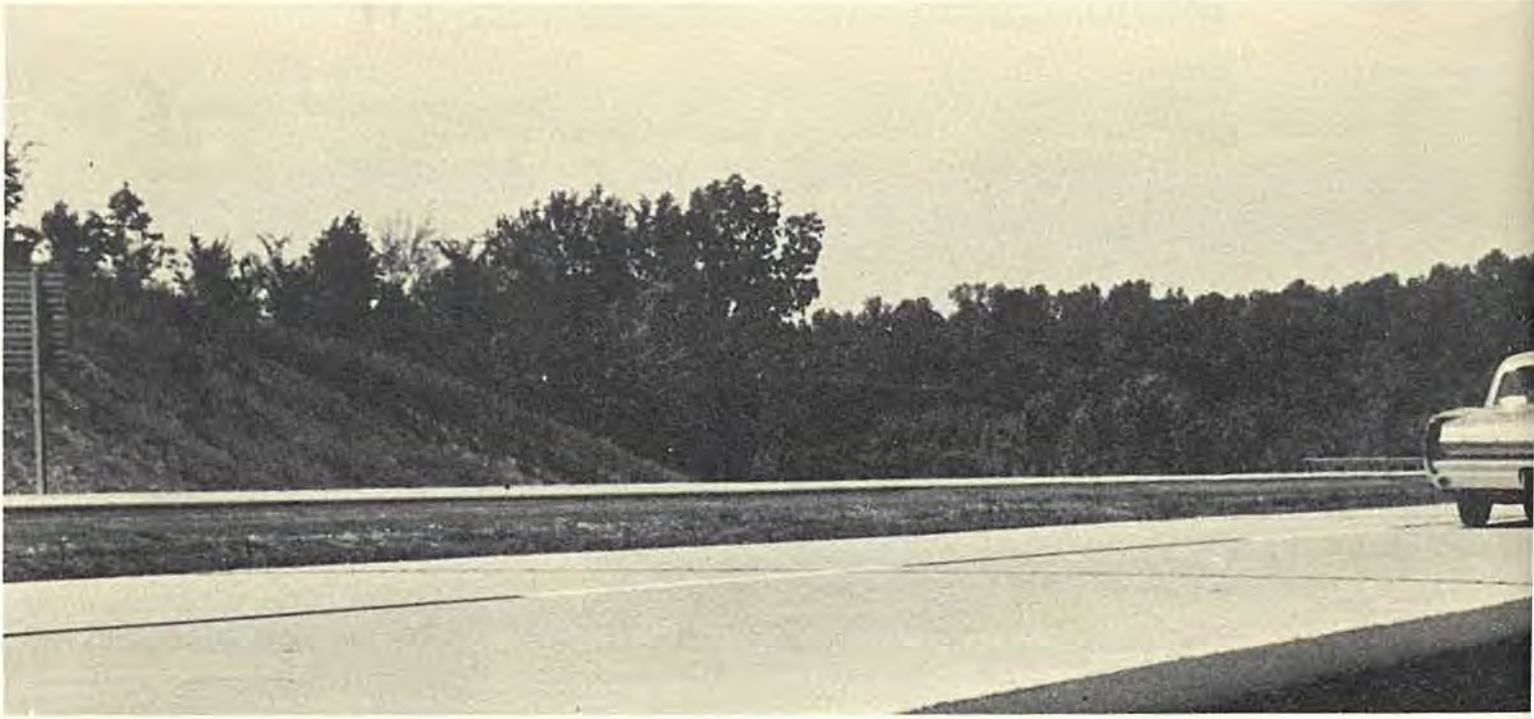
Along the way to those conclusions, "Toll Roads and Free Roads" said some remarkable things, and said them in a manner which made its authors look like prescient highway builders, indeed. Consider the following few excerpts from the book:

"... all traffic lanes of the proposed roads would be 12 feet wide."

"Where the expected traffic volume justifies the construction of more than two traffic lanes, four lanes built in pairs, the pairs separated by a parkway strip at least 20 feet wide in suburban areas and 40 feet wide in rural areas, would be



World War II delayed the system's construction; but dreams die hard, so the planning continued



provided."

"On the roads as planned there would be no intersections at grade. At no point would a driver encounter another vehicle crossing his path; and at no point, except at the specially designed accesses, would he encounter another vehicle entering the roadway."

"Railroad grade crossings would be avoided..."

"All intersecting highways of importance would be carried over or under the proposed roads."

"In view of the predominant national importance of such a system, the Federal Government could reasonably contribute to its construction in a proportion materially larger than that in which it contributes under the Federal Highway Act, but the administration should remain under... the Bureau of Public Roads and the several State highway departments."

It is easy enough to see the essentials of the Interstate system as we know it today in these extraordinarily far-sighted proposals made in 1939. Their historical importance in the Interstate story would be hard to over-estimate. But their immediate practical importance was not destined to be great.

In his letter of transmittal which accompanied the report embodied in "Toll Roads and Free Roads," President Roosevelt recommended the report "for the consideration of the Congress as a basis for needed action to solve our highway problems."

But no general solutions to the country's highway problems involving construction were destined to be started in the fateful year of 1939 - or for many a weary year thereafter. In 1939, the scourge of general war swept across Europe. Two years later, that scourge was visited on the United States, and Americans turned their vast energies and their abundant skills and resources from the congenial tasks of building to the terrible tasks of destruction.

The nation's very existence was being threatened. The nation's response to the threat was total - and left neither money, materials, nor manpower free for the construction of a comprehensive new highway system.

Obviously, no Interstate system could be built while World War II was going on. It does not follow that no Interstate system could be planned while the war was in progress. One could, and on was. Wars end. And dreams die hard. And the men who had caught the vision of what an Interstate

Wide, level medians, broad shoulders whose color contrasts with the road surface, and gentle grades all are characteristics of Interstate everywhere.



system could mean to the American people did not intend to allow that vision to become one of the war's first American casualties. They knew, these imaginative and farsighted highway builders, that the Republic's highway inadequacies — exacerbated by however many years of inattention to them the war was destined to impose — would have to be contended with again once the shooting stopped. Accordingly, they started to write another chapter of the Interstate story within a few short months after the country's entry into World War II.

On April 14, 1941, President Roosevelt appointed a National Interregional Highway Committee "to investigate the need for a limited system of national highways to improve the facilities now available for interregional transportation, and to advise the Federal Works Administrator as to the desirable character of such improvement, and the possibility of utilizing some of the manpower and industrial capacity expected to be available at the end of the war."

One of the members of the prestigious seven-man group named by Mr. Roosevelt was the redoubtable "Chief" MacDonald. Another was St. Louis' nationally renowned city planner, Harland Bartholomew.

For three years, the group appointed by the President — assisted by the personnel of the Bureau of Public Roads and the highway departments of the several states — investigated the big problem it had been asked to look into. In 1944, it made its recommendations to the President and the Congress in a booklet called simply "Interregional Highways." Those recommendations called for the construction of "a national system of rural and urban highways totaling approximately 34,000 miles and interconnecting the principal geographic regions of the country."

A quarter of a century after its publication, "Interregional Highways" continues to make fascinating reading. The farsightedness of its authors can be demonstrated by the quoting of just a few excerpts from the booklet. Consider these:

"The system of interregional highways proposed . . . connects as many as possible of the larger cities and metropolitan areas . . . For this reason, although in miles it represents scarcely over 1 percent of the entire highway and street system, it will probably serve not less than 20 percent of the total street and highway traffic."

"The recommended system connects directly all cities of 300,000 or more . . . 59 of the 62 cities of population between 100,000 and 300,000 . . . 82 of the 107 cities of population between 50,000 and 100,000."

"All rural sections of the system shall be designed . . . for safe travel by passenger vehicles at a speed of not less than 75 miles per hour, and by trucks and tractor combinations at a speed of not less than 60 miles per hour in flat topography. In more difficult terrain the speed for which the highway is designed may be reduced; but in no case to less than 55 miles per hour for passenger vehicles and 35 miles for trucks and tractor combinations . . ."

"All urban sections of the system shall be designed . . . for safe travel by passenger vehicles at a speed of not less than 50 miles per hour, and by trucks and tractor combinations at a speed of not less than 35 miles per hour."

"All rural sections of the system expected to carry an average daily traffic of 15,000 or more vehicles shall provide three . . . lanes for traffic moving in each direction . . . and the lanes for traffic moving in opposite directions shall be separated by a median strip at least 15 feet wide."

"All rural sections of the system expected to



The Interstate plan was sound from the beginning—but money to implement it didn't come easily

carry an average daily traffic of 3,000 but less than 15,000 vehicles shall provide at least two lanes for traffic moving in each direction . . . and the lanes for traffic moving in opposite directions shall be separated by a median strip at least 15 feet wide."

"There shall be no crossing of railways at grade . . ."

"All rural sections of the system shall be established as limited-access highways . . ."

"On all rural sections of the system expected to carry an average daily traffic of 5,000 or more vehicles there shall be no crossings of other highways at grade . . ."

Francis C. Turner, a recent director of the United States Bureau of Public Roads, has described "Toll Roads and Free Roads" and "Interregional Highways" as being "landmark reports." Their chief significance, he says, was in making it clear "that the most urgent highway needs were not only improvement of the principal routes connecting the larger centers of population, but relief from growing urban congestion on main routes approaching and running through cities."

In the Teens and the Twenties, the problems confronting the nation's highway builders were largely rural in nature. Rex M. Whitton, who served with distinction first as Chief Engineer of the Missouri State Highway Department and later as Federal Highway Administrator, has put the matter this way: "In the early days of the federal-aid highway program, the objectives were fairly simple. Within the limits of available funds, the engineering goal was to provide smooth riding surfaces on the shortest distance between control points for the new motor vehicles, and to try to connect the sections of roadway at the state lines. The chief social responsibility of the highway engineer was to see — when feasible — that the barn was not left on one side of the road and the farmhouse on the other."

By the Thirties, all this was changing. The city-dweller was emerging as the typical American, and his emergence was bringing with it a whole new set of problems for the highway builders to wrestle with. During this century's first two dec-

ades, the planning and building efforts of the nation's highway builders were oriented chiefly to the countryside. By the end of the 1930s, the orientation of those planning and building efforts had shifted to the cities. The problems of the city-dweller had by then become dominant in highway planning and highway building, and "Toll Roads and Free Roads," "Interregional Highways," and the Interstate system whose creation they foreshadowed were manifestations of that fact.

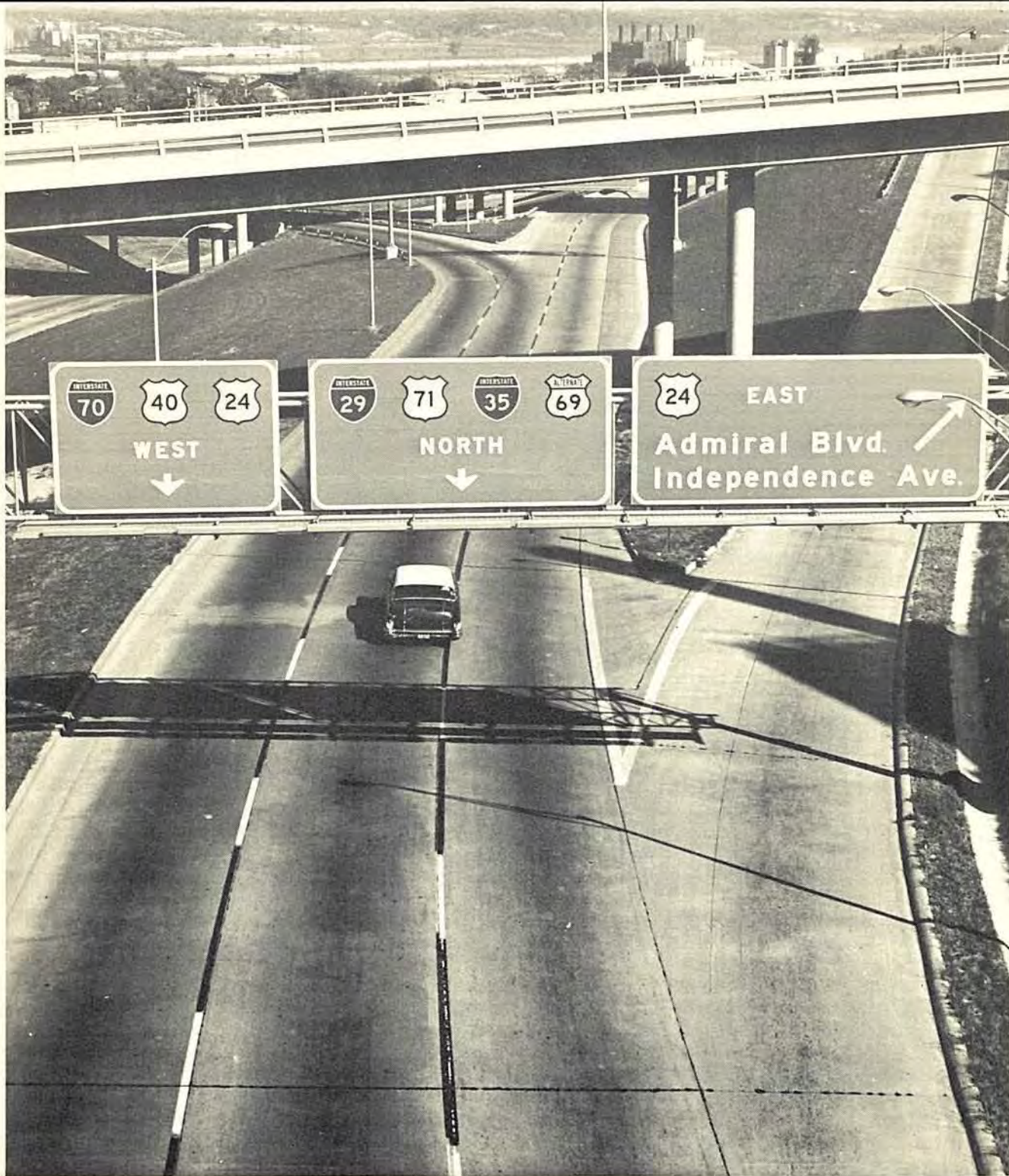
The concepts embodied in the Interstate program were not new when that program was begun in the Mid-Fifties. Many of them went back three decades. Some of them went back much further than that. All of them were remarkably sound and imaginative. From its earliest beginnings, the Interstate plan was a good one.

But planning a highway system intelligently is one thing and getting that highway system constructed is quite another. And the main impediment between a good plan and its successful execution often is money — or more specifically, the lack of it. So it was to be with the Interstate program.

In 1944, Congress called for the creation of a 40,000 mile Interstate system but provided no funds for use in that system's construction. In the years immediately following the end of World War II, numerous modifications of the 1944 proposal were devised by Congress. They were the results of an almost continuous round of conferences and discussions among representatives of the highway departments of the several states, the Bureau of Public Roads, and the Department of Defense. All of them were like the 1944 proposal in one centrally important respect. All of them lacked the necessary funding.

No special funds were provided for the Interstate system until 1952, when Congress authorized the expenditure of \$25 million in each of the fiscal years of 1954 and 1955. The federal government was to share the costs with the states in accordance with the traditional fifty-fifty formula.

In 1954, Congress authorized significantly greater expenditures for construction of an Inter-



Quo vadis, motorists? Interstate signing makes it easy to decide. It's big, bold, bright, readable — even at high speeds.

state system — \$175 million in each of the fiscal years of 1956 and 1957, of which 60 percent was to be supplied by the federal government.

In 1954, President Dwight D. Eisenhower appointed a five-man committee of distinguished laymen and highway professionals and charged it with the responsibility of putting together a comprehensive Interstate program. Lucius Clay,

the former Military Governor of Germany who then headed Continental Can Company, was named Chairman of the group; Francis C. Turner of the Bureau of Public Roads was named as its Secretary.

The report of the Clay Committee formed the basis for the Interstate proposal the Administration tried to get through the 1955 session of Congress.



The thing works-- magnificently

It wasn't enacted — chiefly because of the number and intensity of the disagreements which developed over the question of financing.

But Interstate legislation of a comprehensive kind came into being at last when Congress passed the Federal-Aid Highway Act of 1956. It authorized the construction of 41,000 miles of Interstate highway, established the shares of the cost at 90 percent for the federal government and 10 percent for the states, provided a total of \$25 billion in federal funds for use on the Interstate system from 1957 through 1969, and established the Highway Trust Fund as a repository for the federal monies to be used on the Interstate program.

The creation of the Highway Trust Fund established — for the first time in the nation's history — a direct link between federal excise taxes on highway users and federal aid for highways. Into it went the federal taxes earmarked for Interstate use; out of it came the Interstate federal aid funds for payment to the several states.

The original cost estimate for building the Interstate system, included in the Federal-Aid Highway Act of 1956, was \$27.6 billion — of which \$25 billion was the federal share. The original time estimate indicated that the system could be constructed by 1969. But rapidly increasing construction costs, a steady inflationary trend in the overall economy, and improvements to the Interstate system which have been added as construction has gone along have significantly changed those costs and construction-time predictions.

By 1960, Congress had raised its cost estimate for the Interstate job to \$41 billion and had moved the target completion date back to 1972. In 1966, the cost estimate was moved to \$46.8 billion and the estimated completion date to 1975. By 1968, the cost estimate had risen to \$56.5 billion and the estimated completion date had gone to an unspecified time well past 1975.

Missouri's portion of the Interstate system now is about 61 percent complete. By the beginning of 1969, more than 700 miles of Missouri's 1147-mile share of the Interstate system were at or near Interstate standards and serving traffic. Another 80 miles were under contract and expected to be completed to full Interstate standards and in operation by the end of that year.

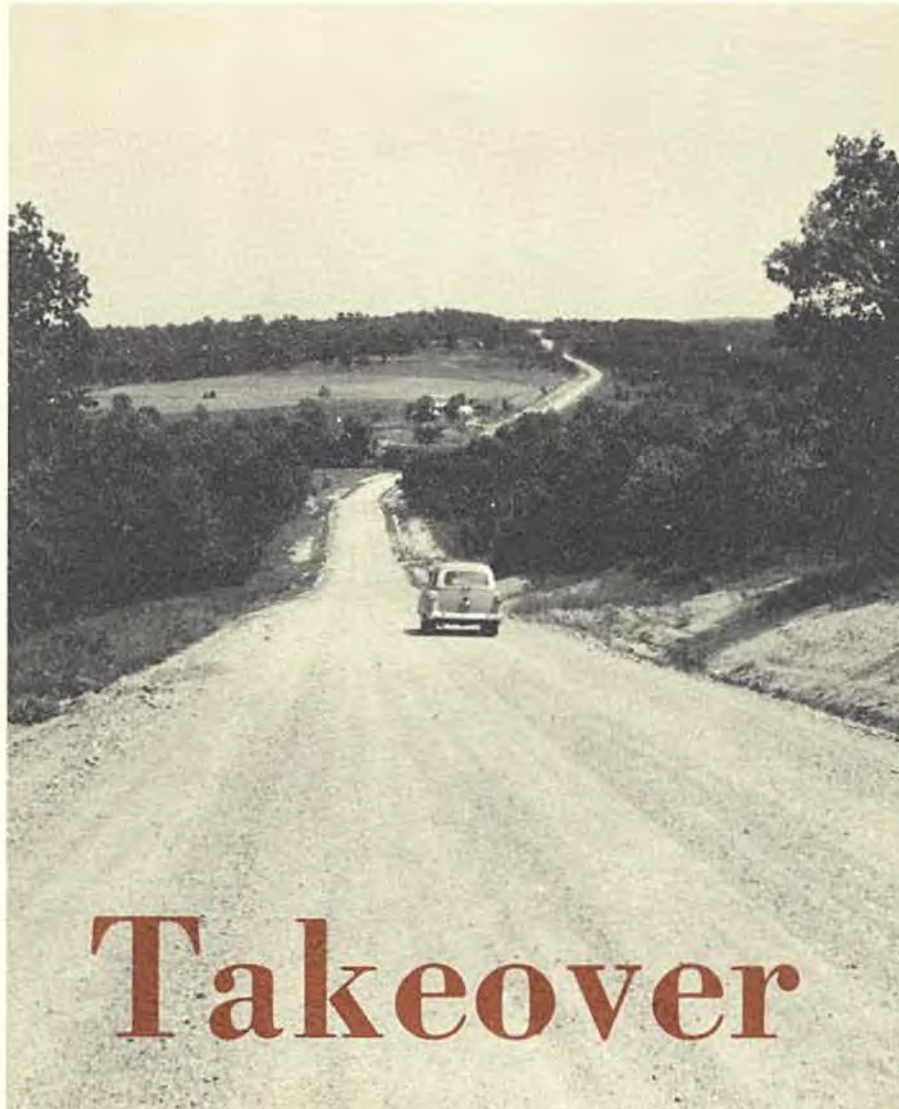
The Interstate mileage allocated to Missouri in the St. Louis and Kansas City metropolitan areas has been largely completed, and is significantly

easing traffic congestion in the state's two largest population centers. Interstate 70 between St. Louis and Kansas City is complete, and has cut travel-time between the state's two metropolitan areas by a third. The heavily traveled I-44 link between St. Louis and Joplin is four-lane divided highway all the way, and is very fast being brought up to full Interstate standards all along its route. The Interstate 29 link between Kansas City and Omaha via St. Joseph, the I-35 route between Kansas City and Des Moines, and the I-55 connection between St. Louis and Memphis via Cape Girardeau, Sikeston, and The Bootheel all are well on their way toward final completion.

Nationwide, there have been problems along the way in the construction of the Interstate system to this point. But given the immensity and complexity of the Interstate building task, and the difficulties extraneous to that task which have plagued the nation's economy during the Interstate building years, the problems have been neither so widespread nor so severe as might reasonably have been expected when the job was started. And already it is clear that in Missouri as elsewhere in the nation, the benefits to be derived from the Interstate system will be spectacular, indeed.

When the Interstate system is completed, it will comprise only a little more than one percent of the nation's roads and streets. But it will carry more than 20 percent of the nation's total motor vehicle travel. Estimates place the dollar savings which the completed Interstate system will yield at \$9 billion annually. At that rate, the system's total cost will be recovered in less than seven years after its completion. That fact alone would make the Interstate system look like a very sound investment. But there is more. Other estimates indicate that the completed Interstate system will save 8,000 lives a year now being lost in traffic accidents, so much safer will be the Interstate system roads than the roads they are replacing. What is the method by which a price tag can be attached to savings of that sort?

The benefits from the part of the Interstate system which already has been completed have been enjoyed — directly and indirectly — by virtually every Missourian. Those benefits have been tremendous. The additional benefits which will come when the Interstate system is complete will not be felt by Missourians for another few years. But they will be well worth waiting for.



Takeover

A FEW YEARS BEFORE the Interstate program was begun in Missouri, another major, long-term effort was initiated by the State Highway Department. This effort, markedly less dramatic, was like the Interstate program in at least one important respect: It was of fundamental and far-reaching significance in the creation of a balanced highway transportation system for the people of Missouri.

It involved the assumption by the Department of responsibility for about 12,000 miles of Missouri Supplementary roads which previously had been the responsibilities of county courts, special road districts, and other agencies of Missouri grass-roots government.

The takeover program, as it came to be called, was accomplished mostly between 1952 and 1962. During that decade, the takeover program incorporated into the state highway system and upgraded to state standards about 12,000 of the miles of highway serving rural and small-town Missouri.

By doing so, it made a quiet revolution in the kind of highway transportation available to the Missourians those roads served. At the conclusion of the program, there was a state-maintained road within two miles of more than 95 percent of all family units in outstate Missouri, and Missourians had a state highway system whose flexibility and ubiquity were unsurpassed by the highway system of any state in the nation.



By, war's end.



By the end of the takeover program, more than 95 percent of all Missourians lived within two miles of a state road.

Supplementary system needs were urgent

AT THE END of World War II, Missouri's system of Supplementary roads included about 7,500 miles. And the war's harsh exigencies had made them badly neglected miles, indeed.

All Missouri highways suffered while the war was going on because of the continuing shortages of manpower, machinery, and materials imposed by the war effort's all-but-total demands. During the war years, the highways which received what little attention could be spared were those which contributed most directly to the nation's military activities. And not many roads of the Supplementary system of that time ran past military installations and war production facilities.

By war's end, the needs for work on Missouri's system of Supplementary roads were both urgent and very widespread. And the Highway Department was ready to meet them:

As early as 1947, the Department was talking about a plan for "construction, replacement, and the addition of approximately 15,000 miles of all-weather supplementary (farm-to-market) state highways of various types and standards (to be added to the existing approximately 8,100 miles of such roads), to bring this total to an estimated 23,100 miles." The plan contemplated a ten-year construction period, and carried a cost estimate of 80 million dollars.

An intra-Department memorandum of the period outlines some of the thinking and some of the methodology which underlay this early plan:

"On December 31, 1945, the Supplementary system consisted of 7,662.7 miles of roads, and upon entering the postwar period the State Highway Department deemed it advisable to take stock of the service rendered to rural Missouri by the number of miles which had been built in order that we might establish a goal to strive for in the future.

"We determined that in building additional roads it was desirable to take highway service in the rural areas as nearly as possible to all county stores, schools, churches, cemeteries, and farm units in the respective counties, and that we should make every effort to make this service as uniform as possible in the various counties. We took the various county maps with our constructed major and supplementary system mileage now under maintenance and ran contours two miles' travel distance from each road. This left large areas in each county where the rural units were some distance from a presently constructed and maintained highway.

"We made an intensive study in each county on

how to serve those areas as economically as possible and with a mileage that with adequate funds could be realized within a ten year period.

"It was determined that with an additional 9,400 miles of roads, service could be rendered in the various counties to approximately 90% of all the rural units within a two-mile travel distance.

"This study was taken to the various County Highway Commissions in the counties which had County Highway Commissions, and in the other counties to the County Courts, and any suggestions which they might offer were given study and consideration and agreement was reached that this would be a very worthwhile program . . .

"The goal which we have been striving to reach is one that will leave not more than 10% of the rural units more than two miles from a state-maintained road."

Early in 1948, the Highway Commission created a Bureau of Supplementary State Highways and Local Roads and selected Fred D. Harris as its chief. The Commission and the Department were moving up fast on the problem of how best to improve and extend highway service to rural Missourians.

But Commission and Departmental planning alone could not solve the problems plaguing Missouri motorists in the early postwar years — both on the Supplementary highway system and elsewhere in the state. Vigorous action was needed. A prerequisite to it was additional money for highway purposes. And before the state's highway users would consent to be taxed more to provide that additional money, they needed to understand Missouri's highway problems and specific plans to solve them.

Governor Forrest Smith took a big step toward making that public understanding possible when, on January 6, 1949, he created the Missouri Highway Advisory Committee. Governor Smith appointed former governor Lloyd C. Stark of Louisiana as chairman of the 16-man bipartisan group. It also included a long-time good highways advocate from the State Senate, Senator Michael Kinney of St. Louis.

The Highway Advisory Committee moved quickly to involve Missourians from all walks of life in its deliberations. Public hearings were held in Jefferson City in late-January of 1949. At those hearings, the committee heard the views of representatives of about three dozen Missouri farm, labor, business, civic, and highway user organizations. The members of the committee also established and maintained a close and cordial working



The program needed money; the people

relationship with personnel of the State Highway Department and the members of the Missouri State Highway Commission.

In mid-March of 1949, the Highway Advisory Committee presented its report to Governor Smith. It was an interesting document, and it was quoted at some length in the minutes of the first Highway Commission meeting held after its release. These excerpts from those minutes may serve to give something of the essential flavor of the report — particularly as it related to the problems on the state Supplementary system:

"By reason of the limited revenue, increased costs, and adverse economic conditions arising out of the war, we are years behind current needs in developing local farm-to-market roads, in solving the traffic problems of the cities, and in maintaining the main highway system."

Turning to a more detailed discussion of the farm-to-market roads, the report went on:

"Fifteen thousand miles of additional rural roads can be incorporated in the state (farm-to-market and feeder) system and place under maintenance in four years at the rate of substantially 5,000 miles the first year, 4,000 the second year, 4,000 the third year, and 2,000 the fourth year. Federal-aid funds and any surplus funds in the rural road allocation would be used to bring this system up to proper standards of construction during the ten-year period. No refunds will be made to counties or other civil subdivisions for roads taken into the state Supplementary system . . .

"Operation under this plan should provide early maintenance of a large mileage of rural roads, but little betterment work in the early part of the period, particularly in connection with bridge construction or reconstruction.

"The foregoing program should supply a total of about 32,500 miles of state roads and would accomplish substantially the result suggested by the Governor . . .

"Your Committee recommends that the Legislature increase the state tax on motor vehicle fuels from the present rate of two cents per gallon to four cents per gallon provided the State Highway Commission adopts a policy and program to expend all funds so made available substantially in accordance with the program outlined in this report."

The State Highway Commission did so — un-announcedly — just a few days after the Highway Advisory Committee made its report to Governor

School's out! One of the big benefits of the takeover program accrued to the state's schoolchildren. For some of them, the way from home to school and back again had been hard — even hazardous. Takeover changed all that — once and for all time.



Smith. The minutes of the Commission's meetings of March 23 and 24, 1949, include these comments about the proposed program to which the Commission was pledging itself and the Highway Department:

"This plan will provide early maintenance of a large number of rural roads in the early part of the ten-year period, the construction or reconstruction of which (especially those involving bridges) will necessarily be deferred until later in the period. Such construction or reconstruction will involve the expenditure of approximately \$115,000,000 in the ten-year period upon the federal-aid Supplementary roads and the lower cost farm-to-market feeder roads."

Shortly before its summer recess in 1949, the General Assembly passed a bill which would have increased the state's gasoline tax from two cents to four cents a gallon. Even before its passage, the bill had become popularly known as the Good Roads Act.

The General Assembly attached no emergency clause to the Good Roads Act when it was passed, so the measure did not become law before the pressures to get a referendum on it were successful. It was put on the ballot for the general election of April 4, 1950. The pressures for a referendum

supplied some



became pressures for the proposal's defeat in the general election.

Governor Smith fought hard to stem the tide which was beginning to run against the proposal. In November of 1949, he said, "Missouri must either go forward with a system of better roads, lift rural Missouri out of the mud, relieve the congested trafficways in the cities — or we are failing in our duty to the people." (Later, the governor called one of the proposal's most important features its provision for construction in rural areas which "will reach into the isolated sections of our counties and provide an all-weather system . . .")

In January of 1950, the Highway Commission officially endorsed the Good Roads Act. It began its endorsement with the statement that "it is clearly the duty of this Commission to inform all Missouri people that a crisis in our road affairs is now at hand."

There was support for the Good Roads Act from other quarters, too. But the campaign against it was insistent — and highly effective.

About two weeks before the referendum election, J. G. Morgan of Unionville, the Commission's vice chairman, predicted that because the public had not been properly informed about highway matters, the danger existed that the proposed

gasoline tax increase might be defeated. Morgan, a Unionville newspaper publisher with a distinguished record of effective good roads advocacy, said:

"The quarter of a million dollars that it is costing to put on the election April 4 is part of the cost of our own folly in neglecting to keep the public informed. Had the public been fully informed the Legislature would have quietly and overwhelmingly passed the necessary legislation, and nobody . . . would have dared to take the issue to the people through the referendum.

"For thirty years the engineers of the Highway Department have been busy building a highway system. This system is a model of achievement based upon the funds that have been available. But right at the moment when we need to move ahead we find that people are so poorly informed that they hesitate to provide the funds with which to complete the system."

Morgan's gloomy warning proved to be an accurate one; the proposal for a two-cents-a-gallon increase in the gasoline tax was defeated in the referendum election. The first post-election issue of the official Highway Department employee publication, "Highway News," commented on the result of the election:



"Before the days of the takeover

"Another good roads proposal was defeated by the voters of Missouri April 4, even though a large majority of their Representatives and Senators had approved the law.

"Charges and countercharges were made by opponents and proponents of the measure with the net result that the average voter was so confused he did not know what to do. When in doubt, the usual result is to vote No. This instance was no exception.

"The regrettable part of the whole story is that the highway problem is still unsolved and that it will get worse before it gets better, unless more revenue becomes available from some source."

The highway problem did indeed get worse. And in the next session of the General Assembly, Governor Smith renewed his plea that something be done about it. On May 16, 1951, he asked a special joint session of the Legislature to "rise above partisanship," increase the gas tax by a penny a gallon, and raise state taxes on buses and trucks. "Who is running the State of Missouri," the governor asked the legislators, "the people or the selfish interests?"

The members of the General Assembly responded to Governor Smith's impassioned address by authorizing the creation of a special legislative committee to study highway needs and highway financing. By mid-July of 1951, the Governor had appointed 27 legislators to service on it. Senator Kinney was named the group's Chairman. The representatives of about half a dozen farm and road user organizations were named as ex-officio members of it.

The members went to work immediately. Within about a week after its appointment, the group held its first meeting. There were to be 17 more during the summer months of 1951. At them, testimony from a total of 72 witnesses was heard and evaluated.

On September 11, 1951, the Joint Commission on Highway Transportation Rates and Use made its recommendations to the 66th General Assembly. In summary, they called for:

- 1) A ten-year program of expansion and improvement on the state highway system costing a total of \$557,500,000, with \$297,500,000 earmarked for work on the

Primary system, \$118,000,000 for work on the Supplementary system, and \$142,000,000 for work on the Urban system.

- 2) An increase of a penny a gallon in the state gasoline tax.
- 3) Increases in Public Service Commission permit fees.
- 4) Increases in commercial motor vehicle registration fees in such amounts as "will bring in not less than \$12,000,000 annually over the ten-year period."

The committee's report to the General Assembly ended:

"This legislation and proposal is recommended upon the condition and belief that the Highway Commission will, to the best of its ability, within the bounds of funds made available to it, carry out its pledge, made by resolution of this date, a copy of which is attached hereto and made a part hereof."

The Highway Commission resolution pledged to expend the monies called for in the committee recommendations on the Primary and the Urban systems, "in the event the General Assembly enacts legislation providing the necessary funds." In the event such funds are provided, the Commission resolution also pledged itself and the Highway Department to:

"The incorporation into the system of state highways during the next six years of approximately 12,000 miles of rural road as additional Supplementary state highways; assume the maintenance thereof; and assume the construction and reconstruction during said ten-year period of this mileage to proper standards. This plan will provide maintenance for a maximum number of rural miles during the early part of the ten-year period, while the construction and reconstruction of them (especially those involving bridges) will necessarily be deferred until the latter part of the period. Such construction, reconstruction, and maintenance will involve the expenditure of approximately \$118,000,000 during said ten-year period."

This time, both the General Assembly and the people were ready to meet the state's highway needs with action. In March of 1952, the Legislature passed a trio of related bills implementing the

were remote. Now, there are

program, some areas of Missouri

recommendations embodied in the report of the Joint Commission on Highway Transportation Rates and Use. Governor Smith said, "The signing of these bills gives me more pleasure than any other official act I have performed since I have been governor."

The Highway Commission moved immediately to start work on the long-needed, long-planned-for, often-delayed takeover program. On August 1, 1952 — just two days after the legislation making the program possible became effective — the Commission took over about 1,500 miles of existing county roads for maintenance by state forces. The initial takeover put some additional road in each of the state's 114 counties into the state highway system. The program was under way.

The roads taken over during the program's early stages became temporary state routes and were so marked. When the counties, special road districts, and other governmental agencies involved made the necessary rights-of-way available to the state at no cost, the temporary state routes became permanent parts of the state's Supplementary system. In those few instances where such rights-of-way were not provided within a reasonable period of time, the state refused to take permanent jurisdiction over the roads involved, the temporary state maintenance on them was ended, and other routes were chosen.

The ten-year takeover program begun by the Highway Department in 1952 was completed almost on time. It ended the fiscal year which ended June 30, 1964. When it was over, the map of the Missouri state highway system had been made over, state-maintained roads had been taken to within two miles of more than 95 percent of all family units in outstate Missouri, and Missouri's state highway system had grown to a whopping 32,000 miles in size and become the seventh largest in the nation. Some statistics tell the impressive story:

At the program's inception in 1952, the Highway Department pledged to spend on it for construction alone a total of \$78,000,000. It actually spent a total of \$161,000,000 — well over twice the amount pledged. There were two chief reasons for the tremendous amount by which actual expenditures exceeded estimated expendi-

tures. The first was the dizzying rise in construction costs during the program's twelve year life. The second was the extensive building in the program of higher type highways than had originally been planned — an upgrading made necessary by the steadily increasing demands of Supplementary-system traffic during the life of the program.

At the beginning of the ten-year takeover program, Missouri had 11,176 miles of highway in its Supplementary system. When the takeover program was finished, this mileage stood at 22,584 — and had almost doubled.

When the ten-year takeover program was completed, there were a total of about 117,000 miles of roads, streets, and highways in Missouri, and the state's highway network offered its users a degree of flexibility in their highway travel unsurpassed in any state.

One Missouri highway planner defines flexibility as that benefit a motorist enjoys "when he's able to get from here to there, wherever there happens to be." Missouri motorists — the ones who live in big cities and the ones who live in small towns, the suburbanites and the farmers — enjoy that benefit in spectacular and highly significant degree. And much of the reason why is traceable to the takeover program of the 1950s and the early 1960s.

In statistical terms, that program about doubled the size of Missouri's Supplementary highway system. In social and economic terms, it brought about a quiet but thoroughgoing revolution in small town and rural Missouri life.

Before the days of the takeover program, some areas of Missouri were remote. Now, there are no remote areas of Missouri left. The last of them was gone when the takeover program was completed in 1964. Nowadays, all Missourians live close to a good, all-weather, state-maintained road. More than 95 percent of them live within two miles of such a road. It goes past their front gate — or their neighbors' place — or it meets the county road they live on a mile and an eighth from their feed lot.

The road starts there for those Missourians. And it runs from there on in to town.

no remote areas of Missouri left."



The Builders



Smith



Sappington



Kirkpatrick



Dalton



Kinney



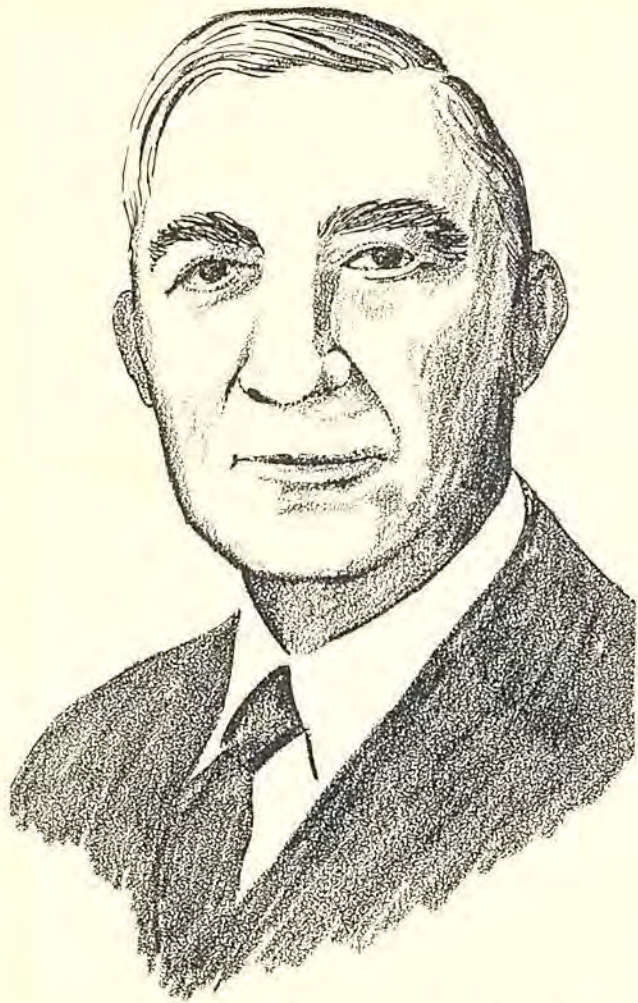
Whitton

NOT ALL ROAD MAKERS are builders or engineers. In Missouri's modern highway history, many people have played important parts. Here are six of them — a state legislator, two governors, a newspaper publisher with long service as a state official, an insurance company executive and a career highway engineer.

Coming from a wide variety of backgrounds and representing often sharply differing points of view, these Missouri highway leaders of the modern era have made many contributions to the building of today's state highway system. But much as they may have differed among themselves about some things, they have shared a common belief — the belief that a well-balanced, smoothly functioning state highway system is essential to the present well-being and the future progress of Missouri and its people.

All men make some things happen. Some men make many things happen. These men made a great many things happen to the Missouri highway system of the post-World War II era. They have been prominent among the movers and shakers of recent Missouri highway history whose abilities, energies, integrity, and dedication to the public welfare have done so much to make this state's highway system one of the nation's best.

"The good of the people," runs one of the inscriptions carved into stone of the State Capitol in Jefferson City, "ought to be the supreme law." The inscription chiseled into the Capitol is in Latin. The lives and works of these men translated it — eloquently — into modern-day English, Missouri-style.



Governor Forrest Smith

He kept at it till he won

THE PERIOD immediately following World War II was a time of troubles on Missouri highways. Wartime demands on manpower, materials, and machinery had sharply curtailed the activities of the State Highway Department in the early 1940s, and a formidable backlog of unmet highway needs had developed.

At war's end, Missouri's highway problems were pervasive and pressing. If they were not to degenerate into crisis, the necessity for action aimed at solving them was imperative. Missouri was blessed in the early postwar years with leaders who recognized that necessity and responded to it affirmatively. Prominent among them was Governor Forrest Smith.

Twice during his term as the state's chief executive, Forrest Smith led in the development of comprehensive plans for improving Missouri's highways. The first of these plans was enacted by the General Assembly but was rejected in a referendum election when the people turned down the two-cents-a-gallon gas tax increase on which the plan depended.

It was a stunning defeat. A lesser man than Forrest Smith might have accepted it as final. To do so seems never to have occurred to him. He kept prodding the General Assembly for action. It responded by developing another comprehensive highway improvement program, this one underwritten by a penny-a-gallon increase in the gas tax.

Laws embodying that program and that gas tax increase were enacted in March, 1952. Decisively beaten in his first advocacy of better highways for the people of Missouri, Governor Smith persevered in the struggle — and kept at it until he won.

When he won, the people of Missouri won, too.

"If at first you don't succeed, try, try again" is a trite saying. Like most trite sayings, it is profoundly true.

The examples of men like Forrest Smith have made it so.

The Builders



A. D. Sappington

*A leader in a
busy and
productive time*

AD. SAPPINGTON of Columbia was a member of the State Highway Commission from 1954 to 1963. His term of service spanned a great period of highway building — a remarkably busy and productive time in Missouri's modern highway history.

During those years, the Interstate program was begun in Missouri, the 12,000-mile "takeover program" was largely executed, the CART program of state financial aid to the counties and cities got under way, such urban freeways as the Mark Twain Expressway in St. Louis and the Southeast Freeway in Kansas City took shape. A. D. Sappington played a leadership role in the making of the Commission decisions which brought about that great burst of roadbuilding activity.

But Sappington's labors on behalf of better roads for the people of Missouri didn't start with his accession to a place on the Highway Commission. They go back a lot further than that, at least to 1943, when Sappington was named general counsel of the MFA Insurance Company.

"From that time," he says today, "I became the company's chief spokesman in the General Assembly. Our firm always has been vitally interested in better roads for Missouri. Our special interest in the early 1940s was in better rural roads. I went to work on the job of getting some."

So effective was his work to be that three short years later, in 1946, he was to play a key role in the writing of the King Road Law — the landmark legislation which first extended comprehensive state financial aid for roadbuilding to the counties. In 1950, Governor Forrest Smith chose him to serve on a committee of legislators and citizens whose deliberations resulted in a ten-year roadbuilding program. The celebrated "takeover program" was a part of it.

For the nine years of his service on the Missouri State Highway Commission, A. D. Sappington spent what he estimates as about a third of all his working time on highway matters. The record he compiled as a commissioner is eloquent testimony to the fact that it was time well spent.



James C. Kirkpatrick

*Two governors
looked to him
for leadership*

TWO MISSOURI governors chose James C. Kirkpatrick to lead statewide information campaigns on behalf of proposed increases in the state gasoline tax.

In 1950, Governor Forrest Smith picked him to head the Missouri Better Roads Committee, an *ad hoc* group which worked for the two-cents-a-gallon increase voted on that year. The increase gained legislative approval, but was rejected in a referendum election forced by its opponents. "The special interest beat it," Secretary of State and Windsor Review publisher Kirkpatrick says today — definitely but without rancor.

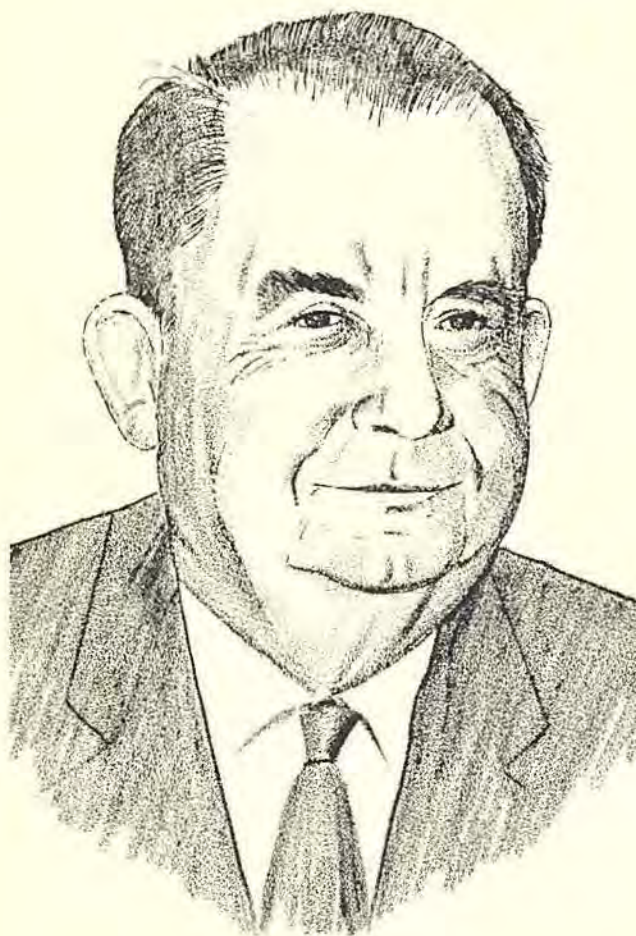
In 1962, Governor John M. Dalton named Kirkpatrick as director of Missourians For Progress, the organization put together to campaign for Constitutional Amendment One. The amendment sought to make permanent a two-cents-a-gallon gas tax hike legislated on a temporary basis six months before, and to initiate a tax sharing formula for the state, the cities and counties for roadbuilding purposes.

It passed by a whopping four-to-one margin. And at the end of the campaign on its behalf, Missourians For Progress still had on hand more than five percent of the funds it had collected. This money was rebated to contributors on a pro rata basis. Some did not want their contributions back. That money — some thousands of dollars — was turned over to the Missouri Good Roads and Streets Association and other good roads groups.

So twice since World War II, James C. Kirkpatrick has enlisted his organizational abilities, his skill and experience as a newspaperman, and the high esteem in which his fellow Missourians hold him in the cause of better roads for the people of this state.

The Missouri Good Roads and Streets Association thanked him for it by awarding him in 1962 its coveted Scroll of Honor Award. All other Missourians ought to thank him for it, too.

The Builders



Governor John Dalton

*He went all the way
down the line*

THE PLURALITY which swept John M. Dalton into the Governor's Office in 1960 was one of the largest ever accorded a Missouri gubernatorial candidate. If ever Missouri voters have given an elected official a mandate for action, they gave one to John Dalton when they elected him governor. He used it.

From the very beginning of his term of office, Dalton put all of his tremendous popularity and prestige on the line in support of a series of measures he believed would be good for this state and its people. His work on their behalf was prodigious. His commitment to them was total. His disregard for the personal consequences was complete. He went all the way down the line for what he thought was right.

One of the measures he fought hardest for was the one known in highway circles simply as Amendment One. This was the Constitutional change ratified by the people in 1962. It increased the state gasoline tax from three to five cents a gallon, and it made available to the cities and counties of Missouri for their use in roadbuilding a continuing twenty percent of all gas tax revenues collected, with the cities getting fifteen percent of the money so raised and the counties getting five.

The good from Amendment One has spread so far and flowed so deep that already — less than a decade after its enactment — it is difficult for most Missourians to remember how things were before it went into effect. How things were was that streetbuilding by Missouri cities was a sometime, under-financed kind of thing, and that roadbuilding by Missouri counties was a stop-and-go activity tied not to the dictates of need but to the ups and downs of money availability in the state's general revenue fund.

John M. Dalton's name in Missouri's modern highway history is linked indissolubly to the passage of Amendment One. His other contributions to the welfare of this state and its people were many and notable. But had he achieved nothing else, his role in the creation of Amendment One alone would have earned him a place of high honor and distinction in the highway annals of Missouri.



Senator Michael Kinney

*The identity
was all
but total*

MICHAEL KINNEY'S St. Louis City constituency first sent him to the Missouri Senate in 1912. He represented it there for more than half a century. Nobody else has served continuously as a state legislator for so long. No state legislator has displayed a keener and more enduring interest in highway problems and their solutions.

When Senator Kinney first went to Jefferson City, Missouri had no state highway system worthy of the name and no State Highway Department at all. He was in legislative attendance on the system's beginnings and the Department's birth. He worked for them, fought for them, nurtured them as they grew. His years as a Senator were the years of their coming of age. He became a fixture on the Senate Committee on Roads and Highways early in his legislative life. Soon he had become a fixture as its chairman, too; and he led it during the last three decades and more of his long and illustrious Senate career.

Michael Kinney's years in the Missouri Senate were coincident with the beginnings, growth, and maturation of the Missouri state highway system. But his contributions to that system were not matters of coincidence. They were the products of his dedication to the cause of good roads, his depth and breadth of vision, and his great legislative and parliamentary skill. And their number was legion.

Michael Kinney was first a highly respected legislator, then an elder statesman, finally an institution in the Missouri Senate. And as his career unfolded, he developed an identity with the cause of good roads that became (despite his significant contributions in other areas) all but total. His devotion to that cause never wavered. His skilled and tenacious advocacy of that cause never faltered. And he has been privileged to see the good fruits of his life's work — a life's work done faithfully and well.

Missouri has a highway system all its citizens can be proud of now. And the contributions of Senator Michael Kinney helped mightily to create it.

The Builders



Rex M. Whitton

*The honors
do not match*

REX M. WHITTON'S resignation as federal highway administrator in 1966 ended more than 46 years of service to the highway-using public. More than 40 of those years were spent as a member of the Missouri State Highway Department, which Mr. Whitton joined in 1920 and through whose ranks he climbed to become chief engineer from 1951 through 1960.

Such landmarks in Missouri highway history as the "takeover" program and the start of the Interstate program were accomplished during his tenure as chief engineer. That helps measure the man. From 1961 through 1966, he served Presidents Kennedy and Johnson as the nation's top federal highway official. That helps measure him, too.

Even a brief listing of the honors his fellow highway engineers bestowed on him reads like a catalogue of the highest awards the roadbuilding profession has to offer one of its own: He's received the coveted MacDonald, Bartlett, and Crum awards. He's a past-President of the American Association of State Highway Officials and a long-time member of its executive committee.

He's a past-Chairman of the Highway Research Board and a veteran member of that key group. He's a winner of the International Road Federation's Man of the Year Award and a "Top Ten" Award from the American Public Works Association. The list could be much extended.

But the honors his profession have brought to Rex Whitton have not matched — and could not match — the honor Rex Whitton has brought to his profession. The man is a living legend.

If the Missouri State Highway Department is animated by a philosophy and a spirit which have guided it to greatness, the life, the personality, and the achievements of Rex M. Whitton are significant parts of the very stuff of which they are made.

MISSOURI'S 32,000-mile state highway system is one of the nation's largest. Only six are larger — those of Pennsylvania, Texas, Virginia, West Virginia, North Carolina, and South Carolina.

But Missouri's state highway system includes only about 27 percent of the approximately 117,000 miles of roads, streets, and highways

which cover the state of Missouri. The county courts of Missouri's 114 counties have jurisdiction over more than twice as many miles of road as there are in the state system. In 1968, operating with state financial aid, the county courts had control of about 69,000 miles of Missouri road. These were the so-called CART miles — the miles administered under the terms of the County Aid Road Trust Fund.

The creation of that trust fund, the events which brought it into being, and the manner in which it works to benefit Missouri motorists are important parts of recent Missouri highway history — and of its future.

CART



CART

THE IDEA that the state government ought to help county and city governments financially and otherwise with their roadbuilding activities is not new in Missouri. But it really is not very old, either. It goes back fewer than fifty years. The reason it does not go back further is not that the counties and cities were not involved in roadbuilding earlier. It is that the state was not.

From today's perspective, it is easy and natural to assume that the work of building highways is and has been almost exclusively the province of the

state and federal governments. It is not so. For much of Missouri's highway history, the counties and cities have played a major role in getting the job done. Though that role is greatly diminished in size and importance nowadays, the significance it retains is considerable.

Missourians did not begin to seek their state government's participation in highway affairs until 1906. There was no State Highway Department until 1913. No state funds were made available for highway purposes *per se* until 1917.

As recently as 1920, county and local bond campaigns aimed at raising money for highway and street construction were significant parts of the

Where the **CART** rolls, road and street



When CART rolled into town, it brought a big cargo of financial help to communities working at solutions to their own street problems. The money came from Jefferson City, the solutions were devised at home.

Missouri governmental scene. Not before the enactment of the storied Centennial Road Law of 1921 did the focus of highway building in Missouri begin to shift from the local and county to the state and federal governmental levels.

At different times in its history, the state has extended differing kinds and amounts of aid to its counties and cities for roadbuilding work. Since the end of World War II the two principal state channels for aid to the counties and cities have been the King Road Law of 1946 and the County Aid Road Trust Fund, established in 1962.

Using reserves in the state's general revenue fund which had been accumulated during the wartime years, the King Road Law created a County Aid Road Fund of \$10,000,000. It provided that the state would "apportion from the General Revenue Fund to the several counties certain money to be used in matching, up to \$750 per mile, equal amounts raised locally for improvement of certain county roads, provided that the construction has been completed in accordance with plans and specifications previously approved."

Neither the money used to establish the County Aid Road Fund nor the money to be provided it was generated by highway use taxes. So in a sense, the Highway Department's interest in the King Law's operation was largely administrative.

As one Department historian of the time who was close to the law's implementation wrote, "The interest of the State Highway Commission was to see that the provisions of the law had been complied with before reimbursements were made to the local subdivisions."

The law provided for supervision of the county roadbuilding by the State Highway Commission and a committee of five county judges to be appointed by the governor.

In 1953 the limit on the amount of state

general revenue money which could be provided to counties on a matching basis for "improving, constructing, and reconstructing county roads" was increased from \$750 to \$1,000 a mile. In the same year, state general revenue funds were made available to the counties "in an amount not to exceed \$50 per mile when matched with local funds for maintenance purposes."

Thus strengthened, the King Road Law continued until 1962 to serve as the state's chief means of providing roadbuilding aid to its counties and cities. It was a good law, and in the main it served Missourians well. But there were some problems in its administration:

progress follows

Since King Bill funds came from general revenue sources, they could — and did — vary greatly from biennium to biennium. The appropriations which controlled them were dependent not on county and city road and street needs, but on the state's overall financial condition. Apportionments of King Bill money bounced from a low of about a million dollars in one year of the law's life to a high of almost three and a half million in another year. This uneven and unpredictable flow of King Bill revenues to the counties made the intelligent and orderly planning of county highway and city street projects virtually impossible.

The rules governing how King Bill funds could be spent were almost as restrictive as the money's flow to the counties was uneven. Throughout the law's life, it was much easier to get King Bill money for construction purposes than for maintenance purposes.

For the fifteen-year period in which the law was operative, about 77 percent of all state money spent on county roads went for construction purposes, only about 23 percent of it for maintenance work. And this was despite the fact that some counties much more needed maintenance of existing county roads than the construction of new ones.

Another restrictive feature of the King Bill was this: all funds not spent within the appropriations period were "lost" for the counties involved. Another was that much of the authority about how roadbuilding was to be done in the counties rested not with the counties themselves, but with the General Assembly.

As appropriations of King Bill money were made, the legislature earmarked certain funds for construction activities in the counties, other funds for maintenance work. With that legislative earmarking, no King Bill funds could be transferred

by county authorities from construction uses to maintenance uses or vice versa.

At least one other characteristic of the King Bill restricted its benefits — it contained formidable amounts of red tape.

Imperfect as it was, though, the King Road Law operated reasonably well for the fifteen years between 1947 and 1962. Certainly it was not an ideal solution to the roadbuilding needs and problems of Missouri's counties and cities. But just as certainly, it constituted a well-conceived and much-needed first step toward meeting those needs and solving those problems. Before another step in that direction was to be taken, Missourians were destined to make a basic alteration in the dominant body of law under which they governed themselves.

The State Constitution of 1945 gave the State Highway Commission the authority to expend "all state revenue derived from highway users . . . including all state license fees, and taxes upon motor vehicles, trailers . . . and motor vehicle fuels."

On March 3, 1961, in a formal statement to the members of the General Assembly and the public, the Commission asked for a popular vote which would approve sharing this highway user revenue.

The Commission supported an immediate increase of two cents a gallon in the state gasoline tax, with no strings attached. Then it stated that the people ought to be given the right, by means of a constitutional amendment, to decide whether or not one cent of the increase being sought should be turned over to the state's cities and counties for their use.

Citing needs studies and fiscal studies by Missouri University researchers and the Automotive Safety Foundation, recommendations of the Interim Legislative Road Study Committee of the Missouri General Assembly, and the highway program recommended by Governor John M. Dalton, the Highway Commission statement warned that "there must be a swift and steady improvement of our state highways to save lives, reduce suffering and property losses, and promote the welfare, prosperity, and economic advancement and development of our state."

The Commission pointed out that more roadbuilding funds were urgently needed for use in St. Louis, Kansas City, and the state's other cities, and that "there still exists a critical need in rural Missouri for the replacement of many bridges which are too narrow or otherwise inadequate to meet the increasing traffic demands."

The Highway Commission said the constitutional amendment should provide for the abolition of city gasoline taxes and the earmarking for road and street purposes of any funds received by the counties and cities from the state. The Commission statement also made the points that "state non-road user taxes . . . should not be appropriated or expended on the maintenance and construction of

CART

the state highway system" and that "state road user taxes . . . should be the sole source of revenue for the construction and maintenance of the state highway system."

With Governor Dalton supplying strong leadership, the two-cents-a-gallon gas tax increase was enacted into law by the General Assembly. The Governor signed the bill embodying it on July 10, 1961, and it became effective on October 13 of that year.

That law stipulated that the increase was to remain in effect for six months only — unless the voters approved a constitutional amendment providing that a penny of the increase be allocated to the state's cities and counties. Three-fourths of the money was to go to the cities and the remaining one-fourth to go to the counties.

The proposed amendment was designated as Amendment One. The campaign for its passage was

well-conceived and energetically pushed. And the Highway Department played a major part in it. So did an *ad hoc* group called Missourians For Progress led by Southwestern Bell Telephone Company President Edwin M. Clark of St. Louis and James C. Kirkpatrick, the publisher of the *Windsor Review* and one of the state's best known and best respected weekly newspapermen.

On March 6, 1962, the people approved Amendment One by a margin of four to one. The two-cents-a-gallon increase in the state gas tax was made permanent. Twenty percent of the state's gas tax revenues — present and future — were earmarked for the road and street purposes of Missouri's cities and counties, with the cities getting fifteen percent and the counties the remaining five. And a secure financial foundation — generated and maintained by highway use taxes — was secured for the County Aid Road Trust Fund.

During the fifteen-year life of the King Road Law, the progress of the CART program had been a hesitant, stop-and-go, sometime kind of thing,

State money helps local solution



Missourians have road and street needs which cannot be met within the state system. Now and in the years ahead,

many of these needs can be met by the use of an efficient thoroughly road-tested CART.

tied to the ups and downs of the state's overall economy as they were reflected in its general revenue fund. Now, the tether which had tied the CART program to the general revenue fund was broken, and CART was ready to roll under its own power.

It rolled fast. The new CART program became possible with the passage of Amendment One in March of 1962. By late May of that year, the State Highway Commission had formulated and made public its policies relative to roadbuilding by the counties and cities in the new program.

By mid-June, Highway Department personnel had held a series of ten regional meetings in which the new state policies were explained to officials of all but one of Missouri's county courts. On June 19, Osage County became the first in the state to get a new CART project under way.

The new CART program included one feature brand new in Missouri highway history — and particularly attractive to city and county officials. For the first time, cities and counties did not have

happen

to match funds obtained from the state.

A penny a gallon from the new five-cents-a-gallon gas tax was deposited in the County Aid Road Trust Fund, and was credited to the accounts of the cities and counties. The CART money remained in the accounts of the cities and counties until they spent it. No funds were "lost" if not spent within a specified time, as had been the case under the King Road Law.

And there was more money available to the cities and counties — much more — under the CART program than ever had been available to them before. During the fifteen King Bill years, the counties, for example, received for their roads an average of less than two million dollars a year. During the first year of the CART program, more than twice that amount was distributed to the counties for roadbuilding projects.

And the rate of state disbursements to the cities and counties has not slowed as the CART program has gone along. By the end of December, 1968, the CART program has funnelled to the cities and counties of Missouri for use on their road projects an average of more than \$4,600,000 a year.

Within broad limits, this money has been spent the way officials of the cities and counties receiving it wanted to spend it. Under the CART program's terms, the State Highway Department is responsible for seeing that the construction and maintenance work done with CART funds is accomplished according to certain standards and procedures specified by law. But the various

county and local officials involved have full authority in choosing the construction and maintenance projects which are undertaken.

There are no stipulations in the CART program that fixed percentages must be spent on construction and maintenance. A county may spend all its CART funds on construction, all of them on maintenance, or some of them on both. The philosophy of the CART approach is that neither the State Highway Department, the General Assembly, nor any other group of people knows so well what a county or city needs in the way of road or street construction and maintenance projects as do the officials of that county or that city itself. And the theory that local roadmaking decisions ought to be made at the local level was vindicated very early in the CART program's life:

During the King Bill years, about 77 percent of all state money spent on county roads went for construction purposes. During the first 15 months of the CART program, approximately 74 percent of the money spent went for maintenance projects.

The new CART program sharply decreased the amount of red tape of the King Bill program. Integral to the CART program's administration is the requirement that every county or city road project on which CART funds are spent must be approved by and accomplished under the direction of the county and city official involved.

There are 114 counties in Missouri, and about 400 cities involved in the CART program. But in a typical recent year, there were 850 governmental agencies of one kind and another involved in road work in the state of Missouri. Township road agencies and special road districts abound. But not one of them is involved directly in the CART program's administration. Neither is any other agency of government except the State Highway Department, the 114 county courts, and the city governments. And the CART program is easier to administer, better organized, and more smoothly functioning because it is so.

The story of the part Missouri's cities and counties have played in roadbuilding in the state since World War II does not constitute the biggest chapter in recent Missouri highway history, nor yet the most exciting. But it is important. And it will continue to be important in the years ahead — especially to Missouri's rural and small town residents.

These citizens have roadbuilding and road maintenance needs which are not being met — and in a practical sense can not be — by any one of the approximately 32,000 miles which comprise the state highway system. Many of these needs already are being met. Many more will continue to be met in the months and the years ahead. And the vehicle being used to meet them is not glamorous or sophisticated. It is the simple — but well road-tested and thoroughly workable — CART.

MUCH OF MISSOURI'S history from World War II to the present has been the story of a mass movement — the trek from countryside and hamlet to city and suburb. That trek started long before World War II. But the war did much to quicken its pace, intensify its impact, and make permanent a continuing process of urbanization as one of the prime facts of contemporary Missouri life.

Most Missourians are city-dwellers now. Even more of them will become city-dwellers in the future. And very few of them are selling their cars when they move to town.

In 1965, more than 47 percent of all the vehicular travel in Missouri went on in the cities of the state. In that same year, less than 12 percent of all the road, street, and highway mileage in Missouri was located in urban areas.

That sort of arithmetic has made and continues to make problems — for the Highway Department, for the other governmental and private agencies and groups involved in urban transportation and planning, and for Missouri motorists by the hundreds of thousands.

What are some of the ways in which the Highway Department and other groups have been seeking solutions to the new kinds of traffic problems resulting from the urbanization of Missouri life? And how are the transportation needs of the city-dwelling and suburban motorists of Missouri being met? The questions are fit subjects for a fat book. Perhaps they can best be dealt with in this brief review by an examination of some of the things which have happened on one street in one Missouri city during recent years.

This is the story of Sunshine Street in Springfield.



The City

THE STATE HIGHWAY DEPARTMENT'S first major project on what now is Sunshine Street in Springfield started in 1929. Springfield then was a city of about 57,500, and included an area of about 15 square miles. It was bounded on the west by Kansas Street, on the north by Kearney, on the east by Glenstone, and on the south by Sunshine. Only there wasn't any Sunshine in those days. At least there wasn't a continuous street called Sunshine running along what then was the city's southern edge. W. E. ("Jack") Baker, the veteran Maintenance Superintendent in the Department's District 8 office in Springfield, knows. He was there. And his memory is sharp and clear. Listen:

"It's hard to drive along Sunshine now and remember how it looked in those days. Take this Glenstone intersection we're going through right now. It's one of the busiest corners in the state today. Know what I remember best about what was here in 1930? A riding stable. It stood where the Empire Bank building stands now. And it was right at the edge of some wide open country. A lot of the country along what's now Sunshine was wide open then. There was plenty of pasture land along here. There were some nice residences here and there, too. But the business places were few and far between. Part of what's now Sunshine had street on it in those days, but a lot of it didn't. A lot of the street we put down along here went where there hadn't been any street before."

Between 1929 and the mid-1930s, the Department paved Sunshine Street from Scenic Drive to Glenstone. The work was done in two sections. The first of them was started in 1929, and paved Sunshine 18 feet wide from Scenic Drive to Fort. The second, started in 1933, paved it 20 feet wide

from Fort to Glenstone. District 8 Surveys and Plans Engineer Max Chalmers, a veteran of 40 years with the Highway Department, remembers how it was:

"From National Street west to about Campbell, there were some real nice residences along Sunshine in those days. But the rest of it was pretty much out in the country. In part of that first work we did on Sunshine, we got some help from an outfit called the Eight Mile Special Road District. It took its name from the fact that it built roads to a distance of eight miles in all directions from what then was Springfield proper. And it did good work. Besides what it did on Sunshine, it did some work on Kearney and some on North Glenstone. The Eight Mile Road District was pretty well known in the late '20s and the early '30s.

"Those early '30s were depression years, you know. Times were hard and money was scarce. I remember that on some of those early Sunshine jobs, the going rates were 25 cents an hour for laborers and 50 cents an hour for concrete finishers.

"The Sunshine jobs of those years had an importance for us that went beyond the immediate Springfield area. West of Glenstone, we designated that street as Route 60 AP when we built it. It was our main route west through Springfield toward Republic and down toward Billings. East of Glenstone, along the old Sweitzer Road, what we built was designated Supplementary Route D. We were taking land parcels for that job as early as 1929."

These first phases of major State Highway Department construction on Sunshine lasted well into the middle-1930s. Jack Baker remembers that in 1936, the federal government specified that the minimum wage which could be paid to laborers on

The City

*The problems are
formidable,
the attacks
on them
are impressive*



Till the middle of this decade, Sunshine Street was a two-lane traffic carrier. These pictures recapture some of the street's flavor during the big reconstruction job of 1965.

the Sunshine projects was 35 cents an hour. "That's the first time I can remember the federal government specifying minimum wages we had to pay," he says.

Baker remembers something else of interest to highway historians about that work on Sunshine in 1936. He says the District 8 Engineer at that time spent a lot of time out on the Sunshine projects, seeing for himself how the work was progressing. "Seems like he was out on the job with us almost every Saturday for several months," says Baker. "He sure was interested in that Sunshine Street work. I'll bet he'd still remember a lot about it — even after all these years. Just ask him the next time you see him, and see if he doesn't." The District Engineer was Rex M. Whitton.

The first phase of the Highway Department's work on Sunshine Street was destined to have to go unimproved for a long time. By the time it was completed, the clouds of general war were lowering over Europe and Asia. Within a few years after its completion, World War II had begun and the United States had become a belligerent in it. For the war's duration, the first work which had been done on Sunshine would have to suffice.

By 1944, Congress recognized that the postwar need for urban highway development and improve-

ment would be urgent. The Federal Aid Highway Act of that year "made Federal Aid funds available for projects in urban areas . . ."

"The Missouri Constitution, adopted in 1945, gave to the Highway Commission the authority to construct highways through all cities of the state regardless of population, which authority was not previously had."

The quotes are from the "Traffic Survey Report of Greater Springfield," an interesting little booklet published by the State Highway Department in cooperation with the City of Springfield and the Public Roads Administration, Federal Works Agency. That report marked the beginning, in Springfield as elsewhere, of full scale cooperation in urban highway and street matters among the State Highway Department and the appropriate agencies of both local and federal governments. The rationale for such an approach seems clear enough today. It was not so clear in all quarters when the Traffic Survey Report for Springfield was published in 1945. That report offered the following paragraph by way of explanation. It is a paragraph which makes eminent good sense today — a quarter of a century after it was written. It says this:

"The traffic problems of the federal, state, and



local governments merge and cannot be separated from each other on any rational basis. When vehicles come into a city from other parts of the state or from other states, they merge with the local traffic, and any facilities constructed to accommodate them will also produce a greater total benefit to the traffic which originates within the area itself. It is for this reason that state and federal engineers are having to interest themselves in urban traffic problems which appear to be local in character."

In 1953, working in close cooperation with local and federal authorities, the Highway Department widened the section of Sunshine from Scenic Drive east to Fort Street at a cost of \$95,000. The improvement wasn't made before it was needed. The traffic pressures on Sunshine — and almost everywhere else in the Springfield area — were getting greater all the time.

Springfield had been a small city before the war. Now it was beginning to act like a big one. Its population, which had been 61,000 in 1940, had increased to only 66,700 in 1950. In the decade of the '50s, it was to increase by almost a third. In 1960, it stood at about 95,900. Today, less than a decade later, it is 127,000. And Harold Haas, Urban Planner for the City of Springfield, says that

the population of the Springfield metropolitan area not only continues to grow, but grows at an accelerating rate.

In 1963, the State Highway Department, the City of Springfield, and the federal Housing and Home Finance Agency and U.S. Bureau of Public Roads published Volume One of what was to become a comprehensive "Springfield Transportation Study." Volume Two of the big report was published four years later, in 1967. Volume One was devoted principally to an inventory of transportation facts and facilities; Volume Two contained future land use and transportation data, plus a recommended street and highway plan. Together, the two parts of the "Springfield Transportation Study" form a part of the Springfield Comprehensive Plan, which was conveyed to the Mayor and City Council of Springfield and the Presiding Judge and County Court of Greene County in October of 1964.

The Springfield Comprehensive Plan — one of the first developed by any Missouri city — is an ambitious and far-ranging piece of city planning, indeed. Volume Two of the "Transportation Study" says this about it:

"It represents a distillation of quantitative data, it sets forth the principals and standards for

The City

*While the traffic
keeps coming,
the work
cannot slow*



Springfield's physical growth, and seeks a balanced approach which will assure the viability of private investment in relation to the continuing need for responsible action in the public sector."

In 1965, again working in close cooperation with local and federal authorities, the Highway Department began a reconstruction of Sunshine Street over most of its course through Springfield — from Scenic Drive on the west to Glenstone on the east. Total construction cost for the work was two and a half million dollars. The street was widened to four lanes, and extensive lighting and signal installations were made. Max Chalmers remembers how it went:

"Everybody was all for us until it became evident that we were going to have to take some of the front yards of some of those pretty homes. Then we had some problems. But not many, really. Most people were most cooperative."

The records from the office of District Right of Way Agent Don F. Atkinson bear Chalmers out: In all, it was necessary to take 251 tracts of land for the Sunshine reconstruction. Of that total, 211 went to the state via the negotiation route and only 40 had to be condemned. Considering the sort of property which was involved, that's a good average.

In 1966, the Department began revision of the

Sunshine and Glenstone intersection and reconstruction of Supplementary Route D from Glenstone east. Costs for the two projects totaled \$550,000, of which about \$85,000 was spent at the intersection.

And that's the way it's been these four decades past on Sunshine Street in Springfield. In 1929 there was no street at all along much of its present course. Today, it's one of the busiest thoroughfares in one of the fastest growing metropolitan areas in the state. The changes have come dizzyingly fast, and prudence would seem to dictate restraint in attempting to predict what the future — even the short-term future — will bring. But some things seem obvious. Or so says Volume Two of the "Springfield Transportation Study":

"The mutual dependence of how-land-is-used and traffic circulation is obvious. There is, in Springfield, a loosely formulated layman's 'law' which says: the volume of traffic expands to fill the amount of street available to carry it on. Street improvements are viewed with a kind of ironic resignation, if not outright disapproval, for too frequently traffic has been allowed to strangle an area.

"Yet being able to move from place to place is generally agreed to be of basic importance to all members of the population. How to accomplish

All along its length, Sunshine says city now. Its intersection with Glenstone (left) is among the state's busiest. Handsome homes grace its middle stretch (center). And near its western end, suburbia holds its pleasant sway (right).



this becomes one of the crucial issues in urban development. How the land is used provides the "attraction" that draws the traffic, yet convenient access may dictate the way certain land is used. Almost a which-comes-first?-the chicken-or-the-egg type of dilemma, the practical assumption must be that land use and transportation are interdependent and should be considered in terms of total environment. Ecological and engineering solutions must be weighted to take account of the whole problem . . ."

The problems involved in furnishing our explosively expanding cities with the sort of highway transportation systems they need — and can use without harmful effects on the non-transportation aspects of city life — are formidable. But so are the knowledge, the energies, and the determination of the Missourians who are attacking them. And perhaps it is proper to give the last word in the matter of whether or not those Missourians can get the job done to that District 8 Engineer who so impressed Jack Baker with his interest in "that Sunshine Street work" back in 1936 — the justly celebrated Rex Whitton.

Mr. Whitton has come a long and a very distinguished way from his involvement with "that Sunshine Street work" in the middle-1930s. But

his interest in the traffic problems of our cities has never diminished. On the contrary, it seems to be growing all the time. As recently as 1967, in a Kansas City address entitled "Traffic In the Urban Age," he said this:

"It is well to keep in mind that transportation crises are an old, old story in the history of cities . . . New York was having transportation headaches in the early part of the 19th Century — before street cars and subways. And one need only look at turn-of-the-century photos of Fifth Avenue to see that downtown congestion plagued New York *before* motor vehicles became common. Yet today, more people than ever live and work and find their recreation in greater New York . . . And throughout the country, the growth of large urban centers is one of the most significant aspects of life in the latter half of the 20th Century.

"So I find it hard to follow the critics of despair who bemoan the decadence and decline of our cities. I see, instead, a tremendous vitality in our cities. If they become choked with traffic, this is not so much a symptom of illness as it is proof that the city and its downtown are very much alive."

Mr. Whitton wasn't talking specifically about Sunshine Street and Springfield when he said that. But they would seem to qualify.

Not monuments, but means



OUR STORY has no end. For roadbuilding is not an event, but a process. And the process continues. When the first white men moved into what is now Missouri, they needed better roads than the Indian trails they found. They built them. But they could not close the gap between what was needed and what they were able to construct. That gap never has been closed.

From Indian-trail days to the present, highway needs in Missouri have continued to grow faster than the highway systems built to meet them. From those early days to these, Missouri's roadbuilders have been engaged in a never-ending game of catch-up. The stakes in the game have been high. And the roadbuilders have played it hard.

The coming of the motor age greatly quickened the game's pace, but did not change its essential character. Missouri's roadbuilders fought their way free of the mud and pulled themselves up onto hard surface. They bridged rivers and cut through hills and straightened curves. And as the busy and productive years went by, they linked cities to towns and farmsteads to both. But the numbers of Missourians, their economy and their dream for the future would not stop expanding.

The roadbuilders kept right on working: A decade ago and more, the Interstate system was begun. The work on it was started in Missouri. No construction project like it had been undertaken before in all of human history. In Missouri and everywhere else, the task was awesome. In Missouri and everywhere else, the roadbuilders were undismayed. The work went forward.

Now Missouri's portion of the Interstate system is well advanced. The thing works — magnificently. It is not enough. The gap between what is needed and what has been built remains as wide as ever.

More roads will be built in Missouri in the years ahead. They will be better roads than any we have known before. They will not be enough either.

Discouraging? Frustrating? A sign of failure? No. A cause for satisfaction. A reason for pride. A vital sign, like steady breathing or a strong pulse. Because roadbuilding is much more than one of the ornaments of a civilization; it is also one of the continuing functions in which a civilization lives and moves and has its being.

Roadbuilding is primarily a matter not of monuments but of means. It's one of the ways people have of getting from where they are to where they want to be. In space, of course. But in time too.

And what we move toward through time is our future — out of sight, but rarely out of mind. We hope it will be better for us and for all Missourians. We work to make it so. And as we hope and work, it waits for us — ten miles, twenty miles, a hundred miles down the road.