

DIRT ROADS INEXPENSIVE

Can Be Maintained at Annual Cost of Four Dollars Per Mile.

ONLY ROAD FOR THIS STATE

Rock Quarries Too Few and Stone Too Scarce to Justify Nebraska in Building Macadam Roads Extensively.

Here in Nebraska, where rock is scarce and hard to obtain, the question of good roads is necessarily a question of good dirt roads.

Some still contend that no road but a hard surface road is a good road. Those who make such contentions, however, are not always familiar with the demands of public travel nor the ability of people to endure the expense of putting a hard surface on all the roads throughout a state.

As far back as 1906 the Missouri State Board of Agriculture suggested a classification of the roads into first and second class. It suggested that the first class roads, that is a few miles of roads near towns or centers over which practically all the traffic passes, should be put into first class shape.

It has been conclusively demonstrated in a number of counties in Missouri that the dirt roads can be maintained in excellent condition for from eight to ten months in the year and in passable condition for the remainder of the year at an expense of not to exceed \$4 to \$6 per mile.

In an article on "The Hard Earth Road; or, Making Roads Without Money" Mr. King says in part: "The depth of the mud road problem I have appreciated for many years. That road dragging solves this problem is not denied by any who have given it a careful test. But I would not be misunderstood. We must have stone roads. No community can afford to do without stone on its main thoroughfares when land is worth \$20 per acre and rock can be had within three miles."

It is claimed for road dragging that it is cheap, simple, effective, and is the best method known for arousing public sentiment on the good roads question. The best drag is made of a split log, but fine results can be had by using any sort of drag, made of any kind of material if it pushes the loose earth to the middle of the road and also smooths the surface.

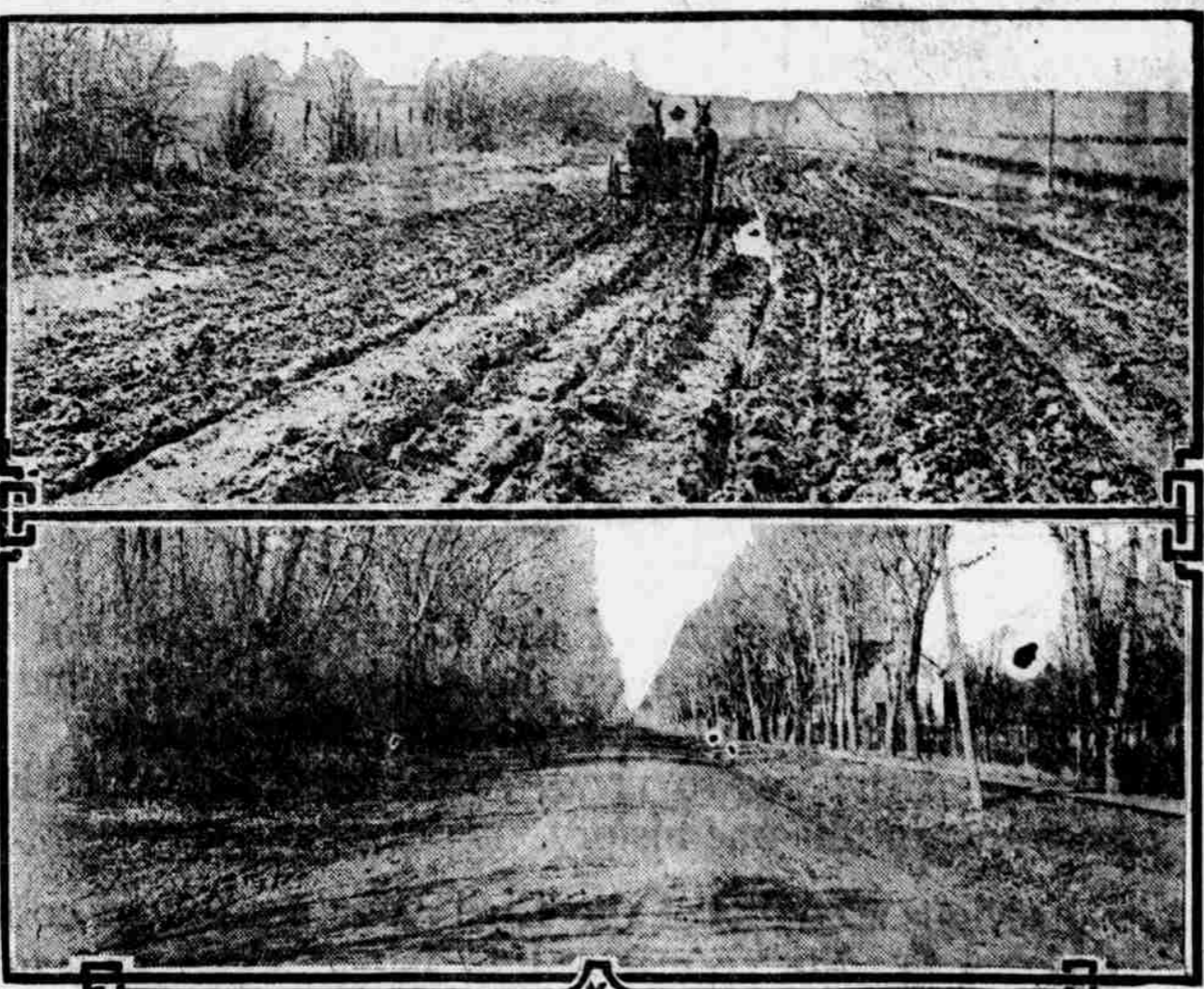
"A drag is easy to construct and simple to operate. It may be made from a log, three stakes and a piece of wire, with an axe and a two-inch auger. The implement certainly is so cheap that any farmer who has a team can own one. A 12-year-old boy can operate it. It is effective. In my own case dragging has made a road that is seldom bad and never impassable. Ever since 1896 I have taken care of the half mile of road between my front gate and my neighbor's front gate toward town."

"The use of the drag in the community has a surprising influence on public sentiment. Ordinarily a community despairs of road improvement. They know of nothing short of macadam at from \$1,500 to \$3,000 per mile, and this to them seems an impossibility. While this frame of mind prevails, the average man will look at the mudhole at the front gate and wonder why the overseer does not come to fix it. But when dragging is taken up by the neighborhood, that same mudhole becomes a personal matter—the owner of the front gate feels responsible for it, and the mudhole disappears. Occasionally a dilatory or selfish man will refuse to drag, but as sentiment rises or intensifies and his piece of road attracts attention by its contrast with adjacent roads, he finds it more and more difficult to stand out against the displeased glances and insinuating remarks of his neighbors."

"When talking with road men in the river bottoms, they invariably bewail the lack of drainage, while the clay hill folks envy the river men because they have no washes. Now the truth is that either clay or gumbo will make a more substantial road than the soft prairie soil. The selfsame characteristics that make clay or gumbo so hard to get into good order after it once gets exceedingly bad, will operate to keep it from getting into bad order after it is once put into exceedingly good order. It will stay good just as tenaciously under good methods as it stays bad under bad methods."

"The greatest factor in getting a road hard and making it defy actions of the weather is the manipulation of the puddled earth while it is moist. Not only is earth in this condition waterproof, but it bakes hard as a brick. It may be well to observe the action of the split log drag in this connection. Now, a crawler or even a single plank scraper shod with iron or even the front slab of the log, when it is shod, will have a cutting action, with a tendency to leave the soil at the surface of the road roughened and slightly lifted up. This condition is not favorable for shedding the next rain. But the split log drag (with only the front slab shod) leaves the surface in a vastly different condition, because the kind slab, not being shod, becomes polished, and as it is drawn over the moist soil smooths and smears and packs. The only time you can hurt the road with the drag is when it is too dry. Dragging the road when it is too dry has a tendency to produce dust. But if you drag in the mud and the weather remains settled, the sun and wind will bake and harden the smooth surface and the road will be improved. However, in the best interests of the road and team it is better to drag

Before and After Treatment



TWO VIEWS OF THE SAME NEBRASKA ROAD.

while the road is still moist, yet sufficiently dry so it will not stick to the face of the log."

Mr. King has compared road dragging to the combing of a man's hair, saying that it is easier to keep the snarls out of the hair by constant combing, so the way to keep good earth roads is to fill the hollows before there are any indications of hollows. Roads go from bad to worse, he says, simply where we leave the puddles and allow the water to settle here and there on the surface until it gets soft in spots before we begin to work.

Like Combing Man's Hair. Mr. King's method has been followed to great advantage in the state of Missouri.

In Nebraska the all-sand road is a problem that has to be met in more than one locality, as well as the clay and

gumbo road. While in the clay and gumbo roads the object is to keep out the moisture, in the case of the sand road it is generally conceded to be best to try to retain the moisture. Best results are said to be obtained where the sand road is made flat and where the growth of grasses is encouraged to help retain the moisture. Straw has been used to good advantage in bettering the condition of all-sand roads in this as well as in other states. In Stanton and Madison counties in Nebraska woody straw has been used to good advantage in the sandiest spots and especially to fill up disagreeable ruts. From two to three inches of straw covering the road is enough to aid greatly. Sawdust in sections where it can be had cheaply has been used to advantage for covering sand roads. This, as well as straw, will not only help the road for the time being

but in time will change the nature of the sand soil, making it firmer.

A sand road is best when it is wet and worst when it is dry. With the clay or gumbo road the reverse is true. When these materials, however, are mixed in such proportions that the clay or gumbo just fills the voids in the sand and acts as a binder it overcomes the objection to both materials and a sand-clay or sand-gumbo road is the result. The materials must be correctly mixed, however. If there is an excess of sand it will lack binding material. If there is an excess of clay it will be softened by water.

The total cost of a sand-gumbo road built in Mississippi county, Missouri, in 1909, for a distance of 5,000 feet, was \$1,372.50, or at a rate of \$1,313.58 per mile. The maximum fill on this section of road was one foot and seven-tenths. The width surfaced was fifteen feet.

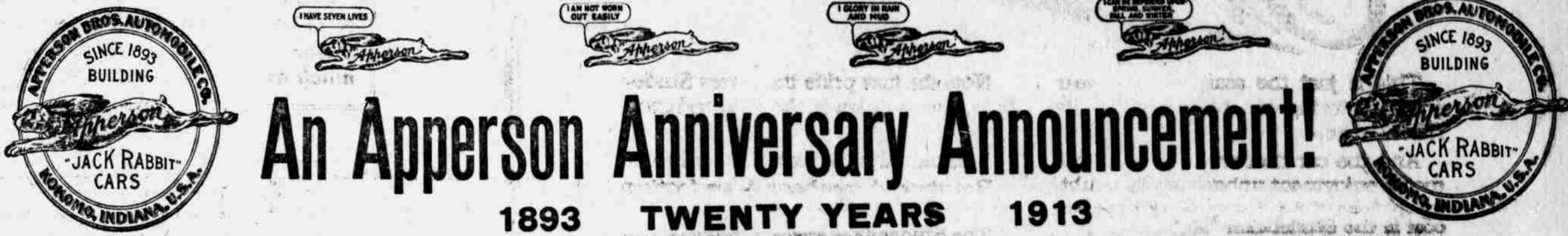
Rebuilt--Used Automobiles

Below is a list of the best automobile bargains in Omaha. These cars have been rebuilt and are now in excellent shape. The prices listed here are marked upon these cars to sell them—and sell them quick. They carry no profit for us. We have taken them in on deals for new cars and all we want now is our money out of them. At these prices they will all be sold in a day or so. If you want one you can't invest your money to more profitable advantage than to purchase one of these models. Here's the hint, though, we are not going to have them many days after this ad appears.

- One Five passenger Stoddard-Dayton, Six cylinder; Top; Glass Front; good running order. Priced to sell at once. \$ 600 Only
One Seven passenger Stoddard-Dayton; New Top; Newly painted; Six cylinder; First class running order \$ 600
One Five passenger, Four cylinder Stoddard-Dayton; Excellent running order; new tires; Bosch Magneto. If it goes before Wednesday it can be had for just \$1,000
One Locomobile "48", Four cylinder, fully equipped. An excellent buy, at \$2,000
One Four Cylinder, 50 horse power, Stoddard-Dayton, fully equipped. It has two bodies, both open and closed. A great bargain at \$2,000

Here is a 3-cornered proposition for you if you act quickly. This will sell quickly. Five passenger, four cylinder Stoddard-Dayton, also two bodies, \$900.00. Or will sell without the limousine body for \$600.00. Limousine body alone \$400.00.

If Interested, come in, phone or write at once, to DERIGHT AUTOMOBILE CO. 1818 Farnam Street, Omaha.



An Apperson Anniversary Announcement!

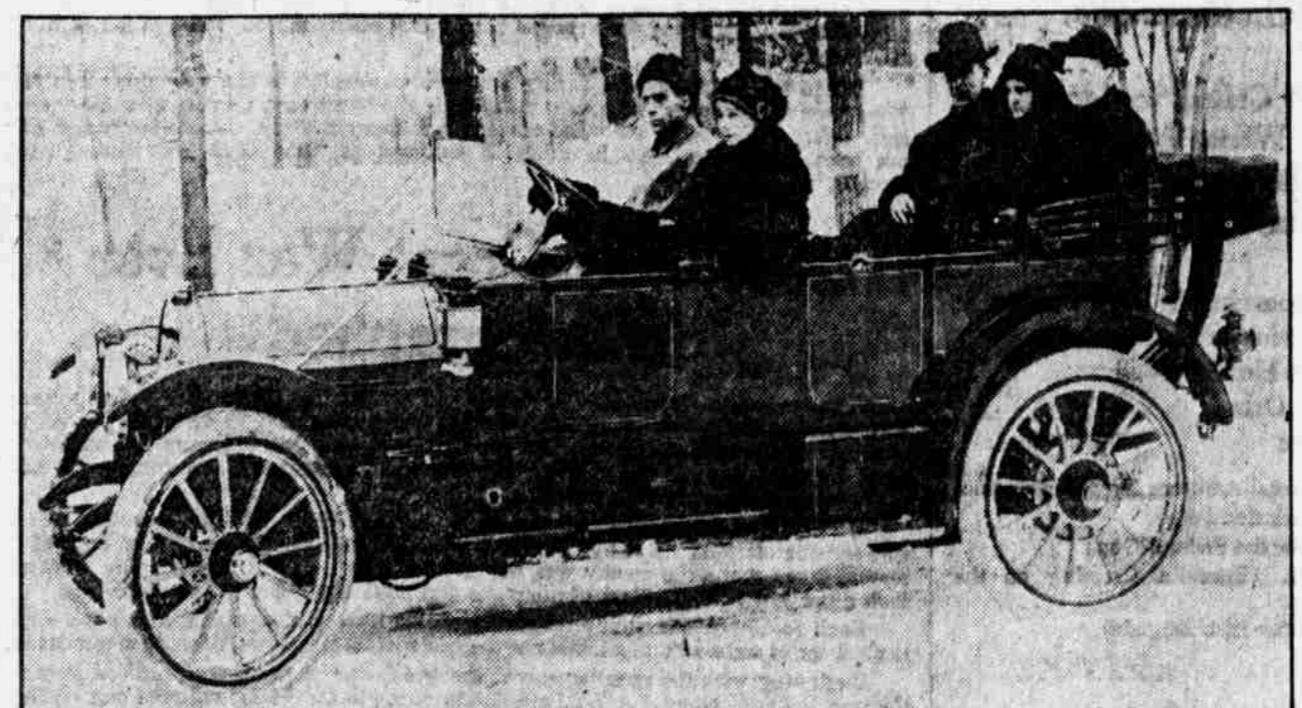
1893 TWENTY YEARS 1913

The famous "Jack Rabbit" motor car is to be handled here

In a New Way, Under a New Management, Insuring To All Purchasers and Present Owners Prompt Deliveries, Careful Attention and Satisfactory Service AN IMPORTANT CHANGE

Great was the demand throughout this locality during 1912 for Apperson cars. So great that a change in representation was necessary to care for the largely increased business. To give satisfaction to purchasers of "Jack Rabbit" cars the Apperson Bros. Automobile Company of Kokomo, Indiana, has placed its representation here with the Apperson "Jack Rabbit" Auto Co., (J. H. DeJong and Hans Nebel). The new company will control the sale of Apperson cars in Nebraska and southwestern Iowa.

THE NEW APPERSON MODELS WILL BE ON DISPLAY ABOUT AUGUST FIRST. In the old Omaha Home of the "Jack Rabbit," 1102-1104 Farnam St.



Apperson Jack Rabbit, five passenger Touring Car, Model "4-55"

JUST A WORD REGARDING APPERSON POLICY AND THE NEW APPERSON CARS—THE APPERSON ANNIVERSARY CARS

Mechanically, the Apperson is right. All motors are the T-head, cast singly with five bearing crank shaft having a diameter of two inches. The total bearing surface is thirteen and a quarter inches. The valves are two and one-half inches, sliding valve water pump. Motors finished in gray, natural aluminum and trimmed in nickel. The clutch is of the contracting band type which is a patent of the Apperson Brothers and has been used by them for twenty years. All transmissions are placed amidships and have three speeds forward and one reverse. The rear axle is of the floating type, embracing all the desirable features of both the so-called semi and full floating, and none of the undesirable features of either. The axle is driven from the transmission by a strong drive shaft, connected by Universals at either end. The finish is of the best and the upholstery is high grade throughout. All cars are finished in Richelieu blue with a fine white stripe with black fenders and hood. ELECTRIC LIGHTING—SELF STARTER—OPTIONAL WITH PURCHASER. At the option of the purchaser, Apperson cars can be equipped with an electric lighting system furnished from a dynamo and storage battery. This equipment includes five regulation electric lights. The self starter is of the compressed air type and has a record for starting a 5 1/2-in. square "Jack Rabbit" motor 22,000 times without falling once. This test covered a period of eighteen months in actual use during all kinds of weather. It includes air tank, pump and cranker. It is a real self starter—not a primer. We are not featuring these two equipments as there are too many other points about the Apperson cars that appeal to the purchaser. THE LINE OF "JACK RABBITS" AS THEY SELL. Five passenger "4-45" Touring Car, \$1500. Five passenger "4-55" Touring Car, \$2000. Two passenger "4-45" Roadster, \$1600. Four passenger inside drive Town Car, \$2100. Seven passenger, "4-55" Touring Car, \$2250. The prices above given include complete touring equipment, viz: Mothair top with dust cover, ventilating wind shield, gas tank, combination speedometer and clock, demountable rims, with one extra rim attached with tire irons in the rear, robe rail, foot rail, gas tank, Cooke floor mat, full set lamps, three oil, two gas, finish black enamel with nickel trimmings; horn, tools, jack, tire pump, and repair kit. Self starter, \$100 extra. Electric lighting system complete with dynamo and storage battery, \$100 extra, upon any model. WRITE TODAY FOR CATALOGUE AND THE A B C OF APPERSON. ALSO ASK FOR A COPY OF OUR NEW HOUSE ORGAN, "THE APPERSON WAY."

Apperson "Jack Rabbit" Auto Company

1102-1104 Farnam St., Omaha, Neb.

J. H. DeJong

Hans Nebel

