FORD TRACTORS SHOW UP WELL AT STATE FARM

Performance Convinces Skeptical Farmers of the All-Around Adaptability for Agricultural Work.

The Ford Motor company, under the direction of the Herring Motor company of Des Moines and Omaha, staged a big power farm demonstration at Lincoln, Neb., during the last three days of the week, which attracted thousands of farmers and automobile men from various parts of the middle west.

According to the Ford Motor compaany, there has been a feeling among farmers that the tractor was an implement of seasonable value and that its chief purpose was to supply power for plowing and work of this nature. The Ford company maintains that this conception of the tractor is entirely wrong and that it is an implement which can be used on the farm 365¼ days each year.

Given Many Tasks.

To demonstrate the possibilities of the tractor 35 Fordson tractors were put in operation under the supervision of the State Agricultural college, Lincoln, Neb. There, on the State farm, these 35 tractors were put to as many different tasks and continued to perform their duty during the entire three days. According to reports from those who have witnessed the demonstration, these tractors were able to supply power for almost every farm need.

Owing to the labor shortage in various parts of the United States, this demonstration was the center of much interest and attention. Farmers, who have heretofore been rather skeptical as to accepting the tractor as a substitute for animal and manpower, have been forced to acknowledge and accept the gasoline motor as the ultimate and proper solution to their manpower and animal power problems.

Overland Four Makes Coast-to-Coast Trip Easily in Seven Days

In auto circles a great deal of credit is being given to the little Overland four, which tackled a transcontinental journey for the purpose of making public the economy of automobile operation on a long, hard trip of this sort.

This car left New York City at midnight, July 18, and was driven night and day for more than seven days, reaching San Francisco at 7:05 a. m., Monday, July 26. On this trip, almost every kind of a road was encountered and in some places the mud and sand was so deep that it was necessary to drive for long distances in second gear.

Each dealer along the route was required to drive the car through his particular territory which, of course, made it impossible for any one dealer to become thoroughly familiar with the operation of the car.

Angry Missouri River, Eating Away Rich Farm Lands South of Omaha, Tamed by Science and Human Ingenuity

Railroad Right of Way Saved by Concrete Bulwarks.

After a life and death battle of 15 years' duration between the swift moving Missouri river and the Burlington railroad, at Folsom, Ia., a hamlet 20 miles south of Omaha, human ingenuity has triumphed.

The battle cost the Burlington fully $1,500,000, but the railroad was fighting in self-defense. The treacherous Missouri was cutting its roadbed away.

The victory of the Burlington has been given nationwide publicity in scientific magazines, for authorities say its effect will be far-reaching. Thousands of acres of the richest farm lands in the world may be saved or reclaimed by the method which tamed the Missouri, engineers say.

Big Muddy Eats.

And more important still, from Omaha's standpoint, this same method is the eventual solution of Missouri and other river navigation problems, in the confident opinion of good authorities.

The old main line of the Burlington originally lay one mile west of Folsom, the river being still further to the west. Then, with its sullen, threatening manner, the Big Muddy began to gradually, but irresistibly, cut its way east.

In 1885 it became necessary for the railroad to construct a new line further east and abandon the old one, which was menaced by the swift river current.

Victory Seemed Uncertain.

Surely, it was thought, the river would move no farther eastward, at least not far enough to endanger the new right-of-way. But the cutting current became narrower and more swift until its approach again began to alarm railroad engineers.

Then began a battle between frail humanity and the great river—a battle that for years was of uncertain outcome, a battle for the life of the line at that point. And for a time it seemed that the river would triumph.

Log rafts were anchored above the place where the current was grinding its way in, and one edge sunk by unloading rock on them. This was to slacken the current. The bank itself was reinforced and supported by brush mattresses and stone dykes.

Trainloads Swallowed Up.

But these efforts were only a partial success. It was found that the rafts had sunk completely and were doing little to deflect the current. And despite the best river bank protection that could be constructed, undermining and inundation continued.

Two years later the dreaded thing happened. The river cut the track. Engineering skill had failed.

With feverish haste the great railroad rushed trainload after trainload of rock to the scene of the catastrophe. Cars and rock were both pushed into the ever widening gulf through which the swirling, muttering current of the river now flowed.

Superhuman effort was needed; superhuman effort was expended.

The cars were never recovered, but the river was stopped—temporarily.

The battle was not over, and as years past, years of never-ceasing combat against the fickle current, combat that cost the railroad fabulous sums, it was decided that another move must be made.

The new line would be built at the foot of high bluffs half a mile east of the former roadbed, it was decided. It would be the last move. The railroad must then fight with its back to the wall. There was no further retreat. The bluffs formed a barrier to the east, the river menaced on the west.

Lincoln Inventor Acts.

Then came a discovery, rather an invention, by Edward Bignell of Lincoln, which put a stop to the moving plans. The invention was a reinforced concrete pile, so constructed that it could be sunk to any desired depth. It was fitted with two pipes, the smaller enclosed within the larger. The larger pipe had vents opening at intervals along the sides of the pile. It was so designed that it could be sunk 20 feet below the river bed without difficulty.

Mr. Bignell, the inventor, who had for many years been superintendent of the Burlington at Lincoln, believed he had found the solution to the river problem in this pile.

Engineers were agreed that a float would slacken the current, causing it to drop silt and sand, thus forming a bar and protecting the endangered bank, if a permanent anchorage could be secured.

First Pile Sunk.

In October of 1918 the first pile was sunk and a float attached with strong cables.

Results were apparent almost at once, for the cutting current lacked much of its former force.

The success of the pile brought it to the attention of Woods Brothers of Lincoln, large real estate operators. Their engineer, Wayne Pringle, assured them the problem had been solved. In September of 1919 Woods Brothers contracted with the Burlington to construct three more of the floating retards, one 150 feet in length, one 250 and the third 450 feet in length, at Folsom.

Although timber was considered preferable, these retards were constructed of 12-foot bridge ties.

Placid, Harmless Pond.

The river was literally tipped toward its west bank by the obstructions.

Today the huge cut in, once the bed of a raging current, lays, a placid, harmless pond, within a few feet of the Burlington roadbed which it menaced for so many years.

Its depth, once averaging from 15 to 25 feet, now is scarcely more than three feet at any place. And within the next few months it will be dry, and eventually capable of again producing the crops it produced in years before the current began cutting in, according to Engineer Pringle.

Save Rich Land.

The Woods Brothers have purchased two steamboats, the "Castalia" from Pittsburgh, and the "Daniel Lindsey" from Louisville, Ky., which they are using to construct more floats.

They plan to save thousands of acres of rich land endangered by the cutting current. By putting an end to the fear of the river in the mind of every river farmer they expect to double the property of the land, some of which they, themselves, own.

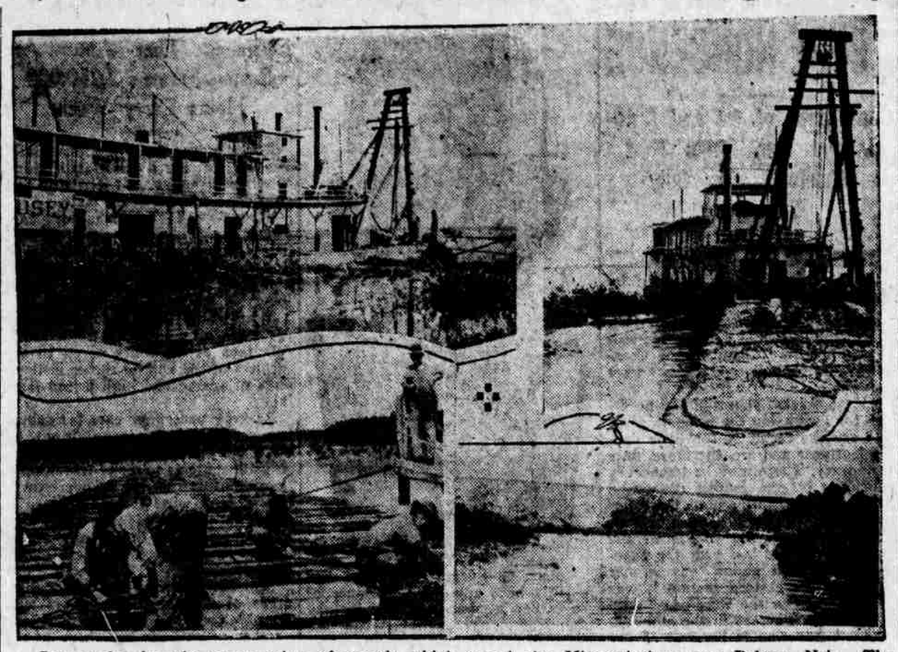
Missouri Is Tamed.

Five such projects are now in process of construction by the Woods Brothers, under supervision of Engineer Pringle, and more are being planned.

Thus, in the opinion of engineers, ends the tyranny of the Missouri. Thus ends, they say, the constant fear in the minds of river farmers from erecting permanent homes, that their land will be washed away—a fear which has prevented them from improving this property and

Thus, too, is the safety of small towns on the Missouri bank assured. No longer will the vengeful current wash away valuable business blocks and terrorize home owners, say the engineers.

For science—human ingenuity—has tamed the Missouri.



Scenes showing the construction of retards which tamed the Missouri river near Folsom, Neb. The upper photographs show the two river steamboats belonging to the Woods Brothers in action. They are the largest boats on the Missouri north of Kansas City, and are invaluable in the construction of the floats which have slackened the current and saved the main line of the Burlington near Folsom. At the left, below, is shown the retards in process of construction. At the right the effect of the retard is seen in the lack of current.

Testing Wheels

During the active running season it is a good plan to test the wheels for side play once a month. Side play causes excessive bearing wear and tire wear as well. Jack up each wheel, grasp it firmly and push and pull it to see if any side motion is apparent. In many cases the wheel bearings are adjustable.