

SPECIAL PLOWS NEEDED IN WEST

Soil and Climatic Conditions Offer Handicap to Plows Suitable in the East.

Oregon is different. It naturally follows, therefore, that Eastern plow tractors have too often imposed implements on Oregon ranchers that are unsuitable to Oregon conditions.

It has been difficult for the Eastern factories to admit that tools wholly satisfactory to the farmers of the East and Middle West will not meet the requirements of Oregon and give equally good results as at home.

They do not allow for the variance in the condition or density of the never-frozen soils of Oregon and the soils mellowed by Eastern frosts.

They do not take into account the packing effect of months of rain on soil followed by months of dry winds and extreme heat.

Hard Layer Is Developed
They overlook in great measure the extreme variety of our soils, ranging from sand, clay, gravel and tulle, and forget our trials and tribulations in contending with roots and salt grass sod, and expect a plow of usual proportions and design to find universal sale.

They are perhaps not familiar with the great mistake perpetrated by the preceding generation of Oregon farmers in the continuous use year after year of the old fashioned heavy beam bench ranging that detracted our marvelous valleys as the world's greatest granaries reduced their yield to a losing proposition.

This Oregon pattern of gang plow was good enough in the days when the virgin fertility of the soil needed only a tugging to respond with a smiling bumper crop. But the continuous shallow plowing, repeated year by year, produced an underlying stratum of hard soil or plow soil, impervious to water and forming a perfect underground watershed for running off rainfall.

Beneath this hard, dry stratum lies a mass of soil, impervious to water and disposed of its God-given purpose of nourishing the crop. To the ripping up of this plow pan the ranchers of Oregon are now committed and the introduction of tractors has greatly assisted and advanced the good work, while at the same time it has added to the troubles of the plow-makers.

Heavy Machines Needed
Perhaps no other state in the Union has a greater proportion of large ranches. The usual 80 acre farm of the Eastern states or the quarter and half sections of the Middle West are wien duplicated in Oregon with ranches of larger acreage. These immense areas call for the heavy powered tractors, capable of pulling a broad width of plows.

The style of plowing outfit of wide capacity now generally approved and adopted in Oregon is a simple grouping of units of smaller gangs, whereby the rancher may readily increase his capacity in easy plowing conditions and reduce his load when the ground becomes hard, by adding or taking off a unit plow. The essence of success of this system is the selection of a suitable unit, one that provides for the difficulties cited in this article. A chain is no stronger than its weakest link. It is needless, therefore, to select for a unit plow an Oregon pattern of strong construction and bracing. It must have clearance and penetration and it should be fitted with chilled or steel bases, according to presence or absence of grit in the ground. This system of plows has become known as the Oliver system, as it has been introduced and advocated by that company in a special and highly successful effort to do things for the Oregon rancher in an Oregon way. That is, a big way, an economical way.

War Work Great, But Tractor Has a Place in Peaceful Pursuits

Great as is the fame that has been won by the tractor because of the marvelous work it has performed in hauling supplies and guns over the shell-torn roads and battle fields of Europe, the fact should not be overlooked that the tractor has done equally wonderful work in more peaceful fields.

The mere fact that the Common Sense tractors are in use in agriculture and various other industries in no less than 25 different countries is sufficient proof of their adaptability to practical work in every conceivable kind of climate and on every class of soil. Everywhere they are driving the draft horse as steadily out of the business for heavy work, as the couple is driving out the carriage horse and the motor truck the old-fashioned delivery wagon.

The Common Sense tractor is the original eight cylinder tractor and is a practical four plow, one man, boy or girl outfit.

Parts Now Being Made Dustproof

Because of the extremely dusty conditions prevailing in most tractor work the modern tractor manufacturer is giving special attention to protection of all parts from dust. On most tractors, also, some contrivance is used to remove the dust from the air consumed by the engine cylinders. If the intake is not thus protected the fine dust drawn through the carburetor to the cylinders mixes with the cylinder oil and forms a gritty paste, causing rapid wear on piston rings, cylinder and crankshaft bearings.

50 Acres Covered 5 Times in 13 Days

The owner of a small tractor writes as follows, regarding some early spring field work: In spite of being interfered with several times by rain, we covered 50 acres five times during and one time plowing in 13 days, working nine hours a day and five hours one Sunday. On other jobs we have worked day and night, using only one quart of water in the radiator each day. At one time we operated continuously for 36 hours at a stretch.

To Remove Play
In removing play from rod bearings by reducing shim thickness, great care should be exercised to get each rod bearing as free as every other bearing.

IT ALSO CAN THRESH GRAIN



Rumely Oil Pull tractor furnishing motive power for threshing machine on big Eastern Oregon ranch.

OVERLOADS AND SPEED BOTH DO GREAT HARM TO BIG MOTOR TRUCKS

Care Should Be Taken by Drivers to Safeguard Mechanism and Tires of Vehicles.

Two abuses to the motor truck are overloading and overspeeding. Motor truck owners and drivers are responsible for these abuses.

About one month ago a manager for an overland haulage concern came up to me with the boast that he was loading five tons on a three ton truck with perfect results. This was interesting news to me as it is also to others who know that when a manufacturer rates a truck at three tons he provides for an emergency excess load which is not to be practiced very often.

Later in the conversation, at an off guard moment, this manager told me that he broke three axles on one very long distant haul. He blamed the roads, but that's one way to look at it. Somehow he had failed to take into account that a truck which is continuously overloaded to the extent of two tons beyond its capacity is bound to break down somewhere, as every part of the machine is laboring under a severe strain from the tires up.

Two Ton Truck Overloaded
Some months prior to meeting this manager I had occasion actually to observe for several days the overloading of a two ton truck to the extent of 1 1/2 tons, and this in spite of the fact that the truck had to overcome a road resistance which ranged from \$20.22 to \$95.37 pounds a ton of goods carried. "Your truck is doomed to the junk pile in six months," I said to the owner. He laughed at me. But I had the laugh on him four months later. My prediction was too conservative.

These two illustrations are typical of what is taking place every day in the West. Drivers and owners are not convinced until the truck is ruined, and then they blame the manufacturer by accusing him of making a truck of poor materials and the like.

Tires Are Badly Treated
Truck owners and drivers who are so inclined to think should bear in mind that overloading causes undue wear on the tires, an increased rate of depreciation on all parts of the machine, that the repair bills under such abuses pile mountain high, and that the cost of running an overloaded truck is greater because of the increased consumption of fuel and lubricants.

Overspeeding is equally as bad for the truck as is overloading. Overspeeding causes the springs to jam together with great force every time a rough stretch of pavement is struck. This blow strains every part of the truck. Increase the speed of the truck three times and the road shock is increased nine times. Overspeed a truck and the owner has the pleasure of fairly burning up his tires. Also, the owner

is rewarded with fuel, lubricant and repair bills which may cause him to grow faint.

Overspeeding Also Harmful
Overspeeding a truck reminds me of an experience which an engineer friend of mine had with an owner. This particular truck, which is of a good make, was used for hauling lumber. The manufacturer in constructing the truck set the body a few inches back of the driver's cab. Before very long the body was tight up against the cab. The owner brought the truck to the manufacturer and said the truck was "no good." To satisfy this customer they reset the body and tightened the bolts until they nearly snapped. But while refitting the body my friend examined the body and saw the cause. Hard usage was very evident. Then when my friend delivered the truck to the owner he reminded him of the fact that the driver was not at fault, but that his drive was "four driver" and was "powerful feet," my friend said. Of course the owner did not believe him. He replied that the driver was all right.

Body Is Jammed Tight
What happened next? In a few weeks the owner brought the truck back again with the body jammed tight against the driver's cab. The owner was angry, and his condemnation of the truck was both generous and venomous. Without a word my friend ordered the truck to the service department. The body was set several inches back of the original place. When he delivered the truck but that's one way to look at it. Somehow he had failed to take into account that a truck which is continuously overloaded to the extent of two tons beyond its capacity is bound to break down somewhere, as every part of the machine is laboring under a severe strain from the tires up.

Livestock-Farm Factor
While the highly specialized farm represents the possibility of great profit, it also represents the possibility of heavy losses on account of the tremendous fluctuation in production, and consequently in prices, of the products of intensive farming. In the greater portion of the country the great mass of farmers must gain their livelihood from the ordinary field crops and the common types of livestock.

Tighten Engine Bolts
In some cars looseness of the engine bolts, those holding the motor in place, may cause misalignment of the engine and serious trouble may result. If there is even slight looseness of the bolts it may permit the motor support to hammer and pound and in time the supporting arm may actually break.

Tossed Into Lake
Pittsburg, Aug. 31. — Henry Varley, 40, an Englishman, was thrown into Elizabeth lake in West park here because he failed to lift his hat when "The Star-Spangled Banner" was being played. Varley told the police after his rescue that he didn't know what the band was playing.

Adjusting Brakes
After adjusting brakes it should be ascertained that the wheels rub freely. This is done by jacking up the rear wheels and turning them by hand. If resistance is encountered and a scraping sound issues from the wheel as it revolves, the chances are that the brakes are dragging. In the case of fabric liners this trouble may be cured by prying the band with a screwdriver or similar tool. It is wise when on a tour to put the hand on the brakes during halts, as the dragging will be indicated by heating of the drums.

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—a pleasing design

—a most useful size

MODEL S-25

Full 25 horsepower is developed for stationary work, with direct drive from motor shaft. For plowing, cultivating and other farm work, a 10 horse pull is delivered to the draw bar.

Exclusive Patented Features of

SAMSON SIEVE-GRIP TRACTORS

—Lubricated Roller Pinion
reduces friction in final drive to minimum

—Samson Sieve-Grip Wheel
gives support and traction without soil packing

—Nodust-Moisto-Rizer
prevents dust from entering the motor

—Ball and Disc Type Governor
provides simple operation with Automatic Control

WENTWORTH & IRWIN
200 Second St., Cor. Taylor
Portland, Or.

AUTOMOBILE TRADE ASSOCIATIONS ASKED TO ADOPT CASH BASIS

Request Is in Line With Policy to Conserve Manpower and Material During War.

As a war measure the commercial economy board, Council of National Defense, has recommended that all of the automobile trade associations throughout the United States adopt a cash basis plan of business for their members. This recommendation is one of numerous others and is made with a view of assisting the government during the present war period. The recommendation is authentic and in conformity with government desires.

War service committees representing the industries of the United States were lately formed at Washington. It was thought important that one committee represent the automobile industry of the United States and accordingly a committee of 14 members were appointed, comprising what was considered the most intelligent and active automobile men in the country. This committee was formed and became active and made an exhaustive investigation to determine what could be done to conserve man power and material. Eight recommendations resulted. One of which was first charge accounts should be abolished in order to conserve man power and material.

Similar recommendations were made in other industries and out of 100 it has never yet been necessary for the commercial economy board to issue a drastic order. Should there be reluctant members of the trade there will no doubt be a drastic order follow which they will probably not resist. However, from the attitude over the Eastern and Middle States where the recommendations were first made it is believed that it will not be necessary for the government to issue such an order. The cooperation of the trade will convince the government that the automobile man is doing everything he can in a practical way to help win the war.

Cash basis has already been established in a number of the counties of the states, and it has already been demonstrated that cash for labor, parts and supplies is of great economical value as it eliminates a lot of unnecessary work, reduces clerical help, office maintenance and eliminates losses.

THINK WHAT AN INTERESTING AND INSTRUCTIVE EXHIBITION THIS WILL BE.

Sept. 5, 6 and 7, 1918

You will see in actual operation practically every tractor manufactured or sold on the Pacific Coast.

The Big, the Medium, the Small sized tractors. Some with wheel drive, some with creeper drive. The right size for orchard use, for vineyard use, for use on the big grain ranches.

Behind the tractors will be pulled Moldboard and Disc Plows, Peg-tooth, Spring-tooth and Disc Harrows, Scrapers, Land Levelers and Sub-soilers, virtually every kind of tractor drawn implement.

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President Wilson's Appeal Is "Produce More Food"

This is a problem with the man-power shortage which is solved by the Farm Tractor.

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Sept. 5, 6 and 7, 1918

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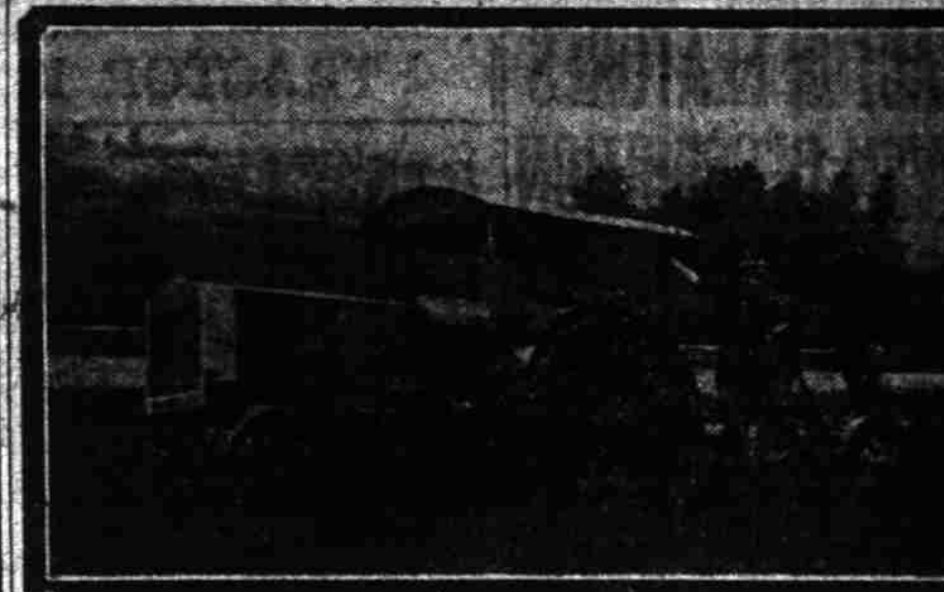
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