

CARE OF EARTH ROADS

USE OF "SPLIT LOG" DRAG IS AGAIN RECOMMENDED.

Washington Highway Association Sees Virtue in Humble Contrivance in Favor Elsewhere.

A large percentage of public highway mileage is and will be for a term of years, of what are known as ordinary or earth roads. In an effort to promulgate information regarding the best means of improving and maintaining in good condition the year round this class of highways, the Spokane County Roads Association, of Spokane, Washington, is sending broadcast a neat little booklet, from which the following extracts are taken:

To keep the surface of an earth road well shaped, the ruts filled and to make the surface as nearly water-proof as can be, the graded road should be carefully dragged or "hoed" after every good rain, just as the surface begins to dry out. This dragging process irons out the ruts, smoothing the surface, and puddles the surface material, making it more impervious to water, which, if the road is properly crowned, runs quickly off and the road will be comfortably passable the year round.

Use of the Split Log Drag. Use the drag only at the right time. Remember that the right time is just as the road is drying out after a rain.

If the above suggestion is followed out carefully, it will be noticed that a practically waterproof surface will be produced, and that the road will shed the rain instead of absorbing it, and the reason why the road should be dragged after a rain is so that it will be prepared to shed the water that it will receive from the next rain.

One man and a team can usually cover from eight to twelve miles a day with a drag.

The drag should be built so that it can be hauled over the road at an angle that will force a small amount of the road material to the center of the road.

Drag the road as soon after a rain as possible, but never when the mud will stick to the tool. Never drag a dry road.

Velocity of Water. Another thing to consider is the velocity of surface water on grades. After heavy rains the velocity of the water on the steeper grades frequently greatly damages the road surface and the ditches. A plan to take care of the surface water at the top of a hill should be devised by which to take the water away from the road surface as quickly as possible.

The crown of the road should be greater upon a grade than on comparatively level surfaces, for the reason that on a grade it is necessary to crown the road to an amount sufficient to cause the water to flow towards the ditches instead of lengthwise of the road.

Water is the natural enemy of any road, and best results cannot be obtained from materials used, let alone what they may, until the water is eliminated.

An ideal road, if it were possible to fulfill the conditions, is an earth road whose surface is practically impervious to water and away from which the water beneath the surface can be quickly drained.

Never, under any circumstances, place on the surface of the road and, roots, organic material or worn-out sods or mud scraped from the ditches or sides of the road.

NEWS OF PEOPLE YOU KNOW

Comings and Goings as Told by Our Exchanges.

Miss D. B. Hayes, of Dallas, has been in the city—Albany Democrat. J. L. Castle, of Dallas, spent several days in Dayton during the week—McMinville Telephone-Register.

Mr. and Mrs. G. A. McCulloch and little daughter Thelma, of Ballston, spent Wednesday at the home of the former's mother, Mrs. S. E. McCulloch, of this city—McMinville Telephone-Register.

Mrs. C. D. Chandler accompanied her sister, Mrs. Richardson, of Tacoma, to Dallas, where they are visiting their sister, Mrs. Walter Davidson—Williamina Times.

W. H. Cadle and D. T. Hodges, of Polk County, were in this city Saturday, shaking hands with Arthur McPhillips and other Tennessee friends—McMinville Telephone-Register.

Find Marble Cave. GRANT PASS, Or., May 15.—Another marble cave was discovered the last of the week in the southern part of the county by G. W. Walton, who was prospecting the hills for a limestone formation suitable for making Portland cement. The newly-found cave was explored for over 100 feet, the interior being composed of tunnels and cross tunnels. In one room the height of the ceiling was 40 feet and stalactites adorned the overhead formation. The explorer found bear bones in the cave and bones that looked like those of elk, and on the floor of the cave was found an ivory spearhead five inches long and a flint arrowhead. Mr. Walton will later explore the cave farther.

A tortoise brought to the London zoo some ten years ago from the island of Mauritius, in the Indian ocean, is said to be the oldest living creature whose age is known with any definiteness. This tortoise, which weighs a quarter of a ton, has lived at least 100 years, according to authentic records which have been kept. Elephants, whales, reptiles and some species of birds are said to occasionally reach an age of 100 years, but rarely do they exceed it.

QUIT

When you feel LASS, Stretchy, Itchy, Sick, Blue and Out of Sorts, look to the Liver, it is TUPID.

HERBINE

It is an invigorating tonic for a torpid liver. The first dose brings a new life to the system, puts the liver in fine vigorous condition. Herbene also extends the life of the liver, and brings back the habit of regular bowels.

When the stomach and bowels are active, all the functional processes, the result of which is renewed energy, mental activity and cheerful spirits.

Price per bottle, 25c. James' Ballard, Prop., St. Louis, Mo.

Use Herbene Eye Salve for Red Eyes. See a Conscientious Doctor.

CONRAD STAFIN

Good Letter Heads Are Good Business

WE PRINT THEM FOR YOU

CENSUS OF WILD ANIMALS

Beasts of the Oregon Forests Are Numbered by Supervisors.

While according to estimates made by the supervisors of the forest reserves in the state of Oregon, to Governor West, are now 100,000 of various species of deer within the boundaries of the reserves, there are killed by hunters annually 14,000 deer, and 20,000 more are destroyed by predatory animals, so that they are slightly on the decrease.

Cougars and wolves, says the report, kill a large per centage of the fawns in the spring and summer, and even many of the old deer which have been weakened by severe winters.

There are estimated to be in all the reserves but 498 elk. The opinion seems to prevail among the supervisors that they are on the decrease. While not as numerous as in the past year, there are about 4000 antelope. They are found on the high desert, and not hunted as much as the deer, and being fleet-footed are not so often killed by predatory animals. The report, relates the Salem Statesman, shows that there are grouse, pheasants, quail, sage hens and prairie chickens in the reserves; also many water fowls, and that the law is being enforced in relation to them.

Coyotes Galore. In the National Forest reserve area of Oregon there are estimated to be about 24,000 coyotes, 12,000 wild cats, 7500 bear, 300 cougars and 900 wolves, which annually kill stock valued at \$120,000, besides being responsible for the destruction of numerous game animals and birds.

A cougar will destroy during its lifetime on an average of 1800 to 2500 deer, while the gray wolf is hardly less destructive. In a snow fall of only two and one-half feet a wolf will pull down any deer within a short time. The cougar kills cattle and horses, while the coyote's chief prey is sheep.

Game Fish. It is estimated that about 1,565,000 fish are taken annually by approximately 8000 fishermen. In several of the forests where the streams are accessible to persons of the larger cities and towns the greater per cent of the fishing is done by these, rather than the settlers. In the Snake National forest, however, approximately 700,000 silversides, chinook and steelhead salmon are caught annually for the canneries and cold storage. Oyster beds are on the Alsea and Coos Bays. In this forest about 75 per cent of the hunters and fishers are settlers within or near there.

Commercial Fertilizers. Farmer Must Study His Own Farm Conditions to Get Best Results.

Detailed suggestions on the best methods of fertilizing and the most profitable kinds of fertilizer constituents to apply on soils of different character, to cotton, corn, oats, wheat and peas, are contained in farmers' bulletin No. 308 ("Farm Practice in the Commercial Fertilizers in the South Atlantic States"), recently issued by the United States department of agriculture and obtainable by application to the secretary or to any senator, representative or delegate in congress.

Commercial fertilizers are expensive and should be used only when needed, and then the deficiencies and requirements of the soil and of the crop must be a matter of accurate knowledge before they can be used with economical benefit.

The character of the soil has a marked influence on the quantity and kind of fertilizer it is necessary to use in a good system of farming. And because a fertilizer is strictly effective on one crop upon a certain kind of soil it is not proof that the same combination will be as beneficial to that crop on another kind of soil and certainly not that its use under a different crop upon another soil will be economical. Yet this is too common a practice among a certain class of farmers.

With a good rotation, deep and thorough tillage and the use of green manures, legumes and winter cover crops the quantity of commercial fertilizers required for a given crop yield can be considerably reduced and a great saving effected. Some farmers get too large yields of others, both located on similar soils, due to the fact that the former have a better understanding of the use of fertilizers and employ better farm methods.

No definite quantity or proportion of fertilizer constituents can ever be given that will meet the needs of a crop under all circumstances, as the relation of crops, the growing of legumes, the use of crops for green manuring, the application of barnyard manure, the methods of preparation and cultivation and the character of soil will always be factors which must be taken into consideration when using commercial fertilizers.

A tortoise brought to the London zoo some ten years ago from the island of Mauritius, in the Indian ocean, is said to be the oldest living creature whose age is known with any definiteness. This tortoise, which weighs a quarter of a ton, has lived at least 100 years, according to authentic records which have been kept. Elephants, whales, reptiles and some species of birds are said to occasionally reach an age of 100 years, but rarely do they exceed it.

LOOK HERE!

The City Express & Transfer Co.

does all kinds of hauling at reasonable rates. Stand and both phones at Webster's Confectionery Store.

ARTHUR STARR Proprietor

DALLAS, OREGON

Sunrise Restaurant

LLOYD KOHARI, Proprietor

Meals and short orders served at all hours. Everything new and clean.

Chop Suey and Noodles

Smith Building; Main and Mill Streets

Dallas, Oregon

Horse Shoeing and General Blacksmithing.

I can cure Quarter Cracks and Contracted Feet, also Interfering and Forging. I guarantee all work. I am a fair trader. I also cure corns on horses' feet.

Horse Shoeing a Specialty.

GEORGE P. CRAMER, Fred Wagner's Old Stand, Dallas, Ore.

Dallas Variety Store carries a complete line

Also the famous Fithian-Barker shoes for Ladies and Children. Come and see what a splendid assortment we have and how far your money will go in supplying you with every detail of your summer apparel.

CONRAD STAFIN

SCIENCE ON THE FARM.

Enables the Farmer to Trade \$2 For \$1, Says a Scientist.

"Carrying Scientific Agriculture to the Farmer" was recently discussed by Dean H. L. Russell, University of Wisconsin: Scientific agriculture is permanent agriculture. The Chinese have been farming for thousands of years. They have applied scientific agriculture. Holland produces thirty-three bushels of wheat per acre. We produce thirteen bushels.

Great interest could be aroused by convincing our people that there is an undiscovered continent whose soil is as productive as ours. We will find that continent when we discover the methods by which our soils can be made to double their production. Our experiment stations have discovered the secret, but that will do no good until the tillers of the soil understand it. The publication of our stations must reach our people and be read by them. Information must be put in concrete form; it must be visualized. Three things are necessary in farming—first, improved seed; second, improved production; third, reduction of loss.

The publication of our stations must reach our people and be read by them. Information must be put in concrete form; it must be visualized. Three things are necessary in farming—first, improved seed; second, improved production; third, reduction of loss.

By growing wheat we increased our bank account and depleted our soil; by drying we both increase our bank account and the fertility of our farm. The purchase of \$2 worth of phosphorus on a stock farm increased our crops \$9 worth. We are always willing to trade \$2 for \$9. There is a limited amount of phosphorus in our soils, and to keep up the phosphorus content we buy for \$10 as much phosphorus in the raw rock as we formerly got for \$25 in the treated goods. The tax which comes from apathy, indifference and ignorance is the highest tax farmers pay.

For the benefit of those who are taking up the matter of feeding special hog rations for the first time a paragraph about tankage may be of interest. This animal product, which, like lime, gluten meal and blood, is very rich in protein, is manufactured from the waste products of the big packing houses, such as meat trimmings, fat scraps, etc. These are put in a tank and subjected to excessive heat for several hours, when the grease is removed and the solid remnants dried and ground and packed in sacks. Some tankage, made from the contents of the stomachs and bowels of slaughtered animals, is fit only for fertilizer and is usually labeled as such. The use of tankage with corn as a ration for hogs has given excellent results in feeding tests. Being a concentrated food, as it is, it should not constitute more than from 10 to 20 per cent of the ration.

Pouring a small quantity of kerosene into the hills of ants near the house is said to be an effective means of driving them away.

LOOK HERE!

The City Express & Transfer Co.

does all kinds of hauling at reasonable rates. Stand and both phones at Webster's Confectionery Store.

ARTHUR STARR Proprietor

DALLAS, OREGON

Sunrise Restaurant

LLOYD KOHARI, Proprietor

Meals and short orders served at all hours. Everything new and clean.

Chop Suey and Noodles

Smith Building; Main and Mill Streets

Dallas, Oregon

Horse Shoeing and General Blacksmithing.

I can cure Quarter Cracks and Contracted Feet, also Interfering and Forging. I guarantee all work. I am a fair trader. I also cure corns on horses' feet.

Horse Shoeing a Specialty.

GEORGE P. CRAMER, Fred Wagner's Old Stand, Dallas, Ore.

Dallas Variety Store carries a complete line

Also the famous Fithian-Barker shoes for Ladies and Children. Come and see what a splendid assortment we have and how far your money will go in supplying you with every detail of your summer apparel.

CONRAD STAFIN

Saturday Afternoon Special

At Merry-Go-Round

WHEELBARROW RACES

EGG RACES

FOOT RACES

Prizes Given for Every Race

Saturday Evening

SERPENTINE BATTLE

Saturday evening will be our last evening in Dallas until July 4, when we will return and be on the same grounds.

BROWNING & COMPANY

THE ONLY WAY. Many Dallas Citizens Have Discovered It.

Just what to do when the kidneys are affected, is a question that concerns both young and old. Weak kidneys neglected in childhood lead to life-long suffering. People of advanced years, with less vitality, suffer doubly. In youth or age, languor, backache, urinary irregularity, dizziness and nervousness make life a burden.

There is one remedy that acts directly on the kidneys and cures them. Doan's Kidney Pills owe their world-wide fame to the fact that they cure sick kidneys and cure them permanently. Follow the example of this Dallas citizen and you will be convinced that this is so.

Mrs. E. C. Hutton, Clay and Lyle sts., Dallas, Ore., says: "In 1897 I publicly endorsed Doan's Kidney Pills and I can now confirm that statement. It brought relief from backache and other symptoms of kidney trouble."

For sale by all dealers. Price 50 cents. Foster-Milburn Co., Buffalo, New York, sole agents for the United States.

Remember the name—Doan's—and take no other.

Why Experiment When Dr. Bell's Pine-Tar-Honey has been tried with satisfaction for over sixteen years in millions of homes for coughs, colds, croup and all throat and bronchial troubles. You can get it anywhere. Look for the bell on the bottle.

PROFESSIONAL CARDS.

ATTORNEYS AT LAW

ED. F. COAD Office in Courthouse

Dallas Oregon

ATTORNEY AT LAW

OSCAR HAYTER Rooms 5 and 6, Uglow Bldg.

Dallas Oregon

ATTORNEY AT LAW

WALTER L. TOOZE, JR. Office in Wilson Bldg.

Dallas Oregon

ATTORNEY AT LAW

SIBLEY & EAKIN The only reliable set of Abstracts in Polk County. Office on Court St.

Dallas Oregon

ATTORNEYS AND ABSTRACTORS

BROWN & SIBLEY Abstracts promptly made. Notary Public, Collections. Mill St. Down-stairs. Dallas, Ore.

DENTIST

M. HAYTER Over Stratton's Drug Store.

Dallas Oregon

BUTLER & BUTLER Attorneys at Law

Room 311-312 Lewis Building. Portland Oregon

Bell phone 103 Mutual phone 1305

R. L. CHAPMAN FUNERAL DIRECTOR AND EMBALMER

Calls promptly answered day or night

Dallas Oregon

DR. B. E. NEVEL VETERINARY SURGEON

Phone, 29 Dallas, Oregon

DR. DAVID YOUNG Osteopathic Physician

Office, 719 Court St. Mutual Phone 621 DALLAS, OREGON.

REGULAR Clubbing Offers

(EFFECTIVE THE YEAR ROUND)

ORDER BY NUMBER

OFFER NO. 1

Better Fruit

and

Twice-a-Week

Observer

One Year For Only

\$2.00

OFFER NO. 2. Publishers Price: Review of Reviews.....\$3.00 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$6.00 Our Price, only.....\$3.75

OFFER NO. 3. Woman's Home Companion.....\$1.50 Review of Reviews.....3.00 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$7.50 Our Price, only.....\$4.75

OFFER NO. 4. Delineator.....\$1.00 McClure's.....1.50 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$5.50 Our Price, only.....\$3.95

OFFER NO. 5. Woman's Home Companion.....\$1.50 Review of Reviews.....\$3.00 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$6.00 Our Price, only.....\$3.75

OFFER NO. 6. Review of Reviews.....\$3.00 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$6.00 Our Price, only.....\$3.75

OFFER NO. 7. Pictorial Review.....\$1.00 Modern Priscilla......75 Ladies' World......50 Pacific Monthly......50 Twice-a-Week Observer.....1.50

Total.....\$5.25 Our Price, only.....\$3.25

OFFER NO. 8. Woman's Home Companion.....\$1.50 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$4.50 Our Price, only.....\$3.25

OFFER NO. 9. McClure's.....\$1.50 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$4.50 Our Price, only.....\$3.25

OFFER NO. 10. Everybodys.....\$1.50 Twice-a-Week Observer.....1.50 Pacific Monthly.....1.50

Total.....\$4.50 Our Price, only.....\$3.25

OFFER NO. 11. Delineator.....\$1.00 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$4.00 Our Price, only.....\$3.00

OFFER NO. 12. Cosmopolitan.....\$1.00 Pacific Monthly.....1.50 Twice-a-Week Observer.....1.50

Total.....\$4.00 Our Price, only.....\$3.00

If you do not see what you want in this list, let us know. We can arrange any combination to suit you.

Use This Order Form.

I accept your Offer No. and enclose \$..... in full payment thereof.

Name.....

Address.....

If already a subscriber to any of the publications named in these offers, your subscription will be extended one year from present expiration date.

If you wish any of the magazines to go to different address, indicate below.

Pine Tar and Honey Have been used for generations in treating coughs. Dr. Bell's Pine-Tar-Honey contains both combined with other valuable ingredients. Look for the bell on the bottle. Be sure you get Dr. Bell's.

Governor West has promised the people of Roseburg that he will attend their strawberry festival if his official duties do not interfere.

There's a Reason For the large and increasing sale of Dr. Bell's Pine-Tar-Honey. When in the need of a cough medicine try it and you will know the reason.

MADE IN DALLAS

List of Live Firms that are making DALLAS one of the leading Manufacturing Towns of the Northwest.

PATRONIZE HOME INDUSTRIES AND BUILD THEM UP.

Insist on Your Dealer Giving You these Goods

Modern Store Fronts Are a specialty at **COAD'S PLANNING MILL** MODERN PLANT-SKILLED WORKMEN—UP-TO-DATE IDEAS. Shop Work of All Kinds at Reasonable Prices.

DALLAS GARAGE ABSOLUTELY FIRE-PROOF Best equipped Garage in the State. Constructed of Concrete Through-out. Automobiles stored at reasonable rates. Expert mechanics in charge of Repair Department. D. F. HARRIS, Proprietor.

DALLAS BAKERY C. C. MULKEY, Proprietor. Do not send your money away to Portland for bread. Buy good Dallas bread and keep the money at home. It will help us and help you. Bell Phone 51. Mutual Phone 326.

COSY CORNER CANDIES Try our fine Home-made Candies and our delicious Ice Cream **CHARLES H. LANE**

COY BROTHERS CONTRACTORS & BUILDERS Plans and Estimates Furnished G. H. COY. W. J. COY. Phone Mutual 1X5 Phone 1574

"OREGON'S BEST" Manufactured Solely by **DALLAS FLOURING MILL** Guaranteed to be the best soft wheat flour in the Willamette Valley. Sold by all Grocers in Dallas.

Otho Williams Merchant Tailor All the New Spring Styles and Patterns. Solicits your orders for Careful and Conscientious Workmanship.

Soehren Warehouse Co. CEMENT CURBINGS AND WALKS We handle a full line of Cedar and Oak Fence Posts, Brick, Lime, Sand and Cement. Land Plaster, Drain Tile, Shingles, Fire Brick, Hair, Wall Plaster and Hop Supplies. One block south of depot Phone 1494

Dallas Iron Works Machineists—Foundrymen—Makers. We are prepared to do any work in Iron and Brass work, Lumber and Stock work on hand and on the market. Prices reasonable.

DALLAS STATION TIME CARD SOUTHERN PACIFIC. LEAVING DALLAS. Passenger No. 74.....6:50 a.m. Passenger No. 77.....7:15 a.m. Passenger No. 76.....7:25 p.m. Passenger No. 75.....7:40 p.m.

SALEM, FALLS CITY & WESTERN RY. East Bound. TRAIN NO. 1. Lv. Dallas.....7:35 a.m. Ar. West Salem.....8:15 a.m.

West Bound. TRAIN NO. 2. Lv. West Salem.....8:15 a.m. Ar. Dallas.....8:45 a.m.

TRAIN NO. 3. Lv. Dallas.....9:15 a.m. Ar. West Salem.....9:45 a.m.

TRAIN NO. 4. Lv. West Salem.....9:45 a.m. Ar. Dallas.....10:15 a.m.

TRAIN NO. 5. Lv. Dallas.....10:45 a.m. Ar. West Salem.....11:15 a.m.

TRAIN NO. 6. Lv. West Salem.....11:15 a.m. Ar. Dallas.....11:45 a.m.

TRAIN NO. 7. Lv. Dallas.....12:15 p.m. Ar. West Salem.....12:45 p.m.

TRAIN NO. 8. (Sunday Only) Lv. Dallas.....1:15 p.m. Ar. West Salem.....1:45 p.m.