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YOU'LL enjoy this real
Burley cigarette. It's
full of flavor—just as good
as a pipe.

IT'S TOASTED

The Burley tobacco is
toasted; makes the taste
delicious. You know how
toasting improves the flavor
of bread. And it's the
same with tobacco exactly.



Guaranteed by
The American Tobacco Co.
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ALBERT WILLIAMS WOOD AND COAL

I have taken over the fuel businesses of both the Heppner Wood Yard and C. H. Goldsmith, and can furnish fuel of all kinds in any quantity desired.

Leave orders with A. Z. Barnard or phone Main 393

YOUR BUSINESS SOLICITED.

Weeding out poor milkers from the dairy herd is no longer a theory in Oregon; it is a fact, and has been especially profitable in this period of high-priced feeds. "The cow tester is aiding in food production by sifting out the most efficient food-producing machine in the country—the good dairy cow," says O. D. Center, director of the O. A. C. Extension Service.

Liberty Bonds Not Accepted.

Internal Revenue Collector Miller says: "Correspondence reaching this office indicates that persons have been erroneously advised that Liberty Loan Bonds will be accepted in payment of taxes due the United States. "Liberty Loan Bonds cannot be accepted in payment of such taxes. To accept these bonds for taxes would defeat the revenue ends."

HEPPNER FARMERS ELEVATOR CO.

Manufacturers and Distributors
of

White Star Flour

and Dealers in

Flour, Feed, Grain, Stock and Poultry Supplies

BETTER ROADS IN MORROW COUNTY WOULD INCREASE PULLING POWER OF THE HORSE

By Ira Osborn Baker, C. E. Professor
of Civil Engineering, University
of Illinois.

The horizontal pull which a horse can exert depends upon its weight, its form or build, the method of hitching, the foot hold afforded by the surface, the speed, the length of duration of the effort, the rest-time between efforts, and the tax upon the future efficiency of the horse. The chief of these are the weight, the speed, and the length of the effort.

Horses vary in weight from 800 to 1,800 pounds. The larger horses do not usually travel more than two and a half or three miles per hour. With reasonably good footing a horse can exert a pull equal to one tenth of his weight at a speed of two and a half miles per hour (3 2-3 feet per second) for ten hours per day for six days per week and keep in condition. This is a common rate of exertion by farm horses in pulling plows, mowers and other agricultural implements. On this basis a 1650 pound horse would develop 550 foot-pounds per second (the conventional horse-power) and 16,500,000 foot-pounds per day. A lighter horse will exert a proportionally less force. This may be considered about the limit of endurance. If the time of the effort is decreased, the draft must be proportionally increased; or if the speed is increased, the draft must be decreased in a like proportion. In other words, the foot-pounds of energy that can be developed per day by any particular horse

is practically constant.

The maximum draft for a horse is about of his weight, although horses have been known to exert a pull of two thirds of their weight. Most horses can exert a tractive power equal to half their weight, at a slow walk for about 100 feet. On the road in emergencies, as in starting, the load or in overcoming obstacles, a horse may be expected to exert a pull equal to half his weight, but at this rate he develops a day's energy in about two hours; and consequently if he is expected to work all day he should not be called upon to exert his maximum power except for a short time. Similarly, a horse can exert a draft equal to one quarter of his weight for a longer time. The working tractive power of a horse may be taken as one tenth of its weight, with an ordinary maximum of one quarter, and in great emergencies a maximum of one half of its weight.

Effect of Grade.

The effective tractive power of a horse upon an inclined road surface is decreased by the fact that the horse must lift his own weight up the grade. The following table shows the load a horse can draw upon different road surfaces when exerting a uniform pull equal to one tenth of its weight. The load is in terms of the weight of the horse.

Compare these facts with the road conditions in Morrow County and you can easily determine whether or not the proposed road improvements will increase the hauling capacity of our rural districts.

Rate of Grade Per Cent	Iron Rails	Sheet Asphalt	Broken Stone	Stone Block	Best Spongy Earth Road	Muddy
0	20.0	10.0	6.0	5.0	3.0	2.0
1	6.0	4.50	3.33	3.00	3.09	1.50
2	3.20	2.67	2.16	2.0	1.15	1.14
3	2.00	1.75	1.49	1.40	1.11	0.87
4	1.33	1.20	1.05	1.00	0.82	0.68
5	0.91	0.83	0.75	0.71	0.60	0.50
6	0.62	0.57	0.52	0.50	0.43	0.36
7	0.40	0.38	0.34	0.33	0.29	0.25
8	0.24	0.22	0.21	0.20	0.18	0.15
9	0.15	0.10	0.09	0.09	0.08	0.07
10	0.0	0.0	0.0	0.0	0.0	0.0

LIVE CECIL NEWS ITEMS

Miss Carrie Nash was a Cecil caller on Tuesday.

J. J. McIntyre returned home from Heppner Saturday.

Jack Hynd left on the local for Heppner on business.

Louis Montague was a Cecil visitor from Arlington on Monday.

Mesdames P. Nash and A. E. Nash visited with Mrs. Boyd Logan Friday.

Mr. Heast of Wasco spent the week-end in Cecil fixing up his Overland car.

The Rev. Dr. Van Waters will give his usual monthly address in Cecil Hall Feb. 11.

A. Henriksen returned home on Wednesday after a brief visit in the Redmond district.

Sox Morgan, Cecil Ahalt and Mrs. H. Ahalt spent Sunday with Mrs. Boyd Logan at Cecil.

J. W. Osborn, Mrs. Combest and Mrs. T. H. Lowe dined with Mr. and Mrs. J. H. Franklin Monday.

Grandma Nash, who has been visiting with Leon Logan for the past few days returned home on Wednesday.

Geo. A. Miller and Mesdames Combest, Nash and Lowe called on Grandma Melton, who is seriously ill, Saturday.

Roy Stender and Cecil Thorn accompanied by Miss Irene Douglas and Hazel Winters and party were Cecil visitors on Sunday.

A. C. Minor, Mr. and Mrs. J. H. Franklin, Mrs. Bennett and the Misses Easton, Hynd and Franklin left on the local for Heppner Tuesday.

Henry Streeter, who has been on the sick list for the past few days, accompanied by Mrs. Streeter and family, spent Sunday with Uncle Joe Osborn.

E. H. Kellogg, of Heppner, who is doing some hay hauling on the Henriksen place, made a trip to Cecil on Saturday to have his gasoline tank replenished.

C. A. Minor arrived on Monday at "The Last Camp" from Portland, leaving on Tuesday for Heppner where he will spend a few days before returning to his home in Portland.

Jack Hynd, W. G. Hynd, Alf Shaw, T. H. Lowe and Miss Louise Shaw went by auto to Heppner Tuesday and took in the lecture given by the Canadian officers, returning home on Wednesday.

The following were all to be found in Cecil on Saturday: Ellis Minor, J. H. Miller, Roy Stender, James J. Allyn, H. C. Winters, the recent snow storm having suspended work on the ranches and farms.

A surprise party was sprung on Warren Stender on the occasion of his 21st birthday by about 25 of his friends. Among the number were noticed Mr. and Mrs. Wid Palmateer, also J. H. Miller accompanied by Misses Irene Douglas and Hazel Winters. All report having a good time.

FEED DRIED POTATOES

Dried pressed potato is "very efficient in producing rapid gains and a high finish when fed to swine," United States Department of Agriculture investigators have found in a search for a suitable way to dispose of cull or surplus potatoes.

To give the best results, however, dried pressed potatoes must be fed in combination with feeds rich in protein, such as oil meal, fish meal, and tankage.

The investigators also advise mixing or soaking such feed with water for 15 minutes before its use.

An experiment, in which were used 12 shigh grade pigs between five and six months of age, was conducted to determine, first, the value of dried pressed potato in a ration for fattening hogs and supplemented by feeds rich in protein, and, second, the effect of dried pressed potato on the quality of meat produced.

The pigs were divided into four lots of three each. The first lot, for checking purposes, was fed a ration of six quarts corn meal and one part tankage. The other three lots were fed rations of six parts dried pressed potato, the second lot supplemented by one part tankage, the third lot by one part linseed-oil meal (old process), and the fourth by one part of fish meal. The pigs in all the lots ate well and regularly, and the investigators drew the conclusion that the dried pressed potato rations were palatable and produced pork readily.

In carcass tests after the fattening experiment the investigators found "on the whole it is impossible to say that dried pressed potato meal does not produce a fat equal for all purposes to that produced by corn meal. While we were able to note some little difference in hardness in favor of the lot fed on corn meal, that difference was so small as not to be noticed under average packing-house conditions. Dried pressed potato meal does not produce soft pork."

Regarding the quality of the meat in the case of bacon strips, little difference can be detected. Here it is indicated that the corn-fed hog is much the fattest.

In the rendered lard, the investigators found no noticeable variation in taste, odor, color, or consistency. The carcass data are thus summarized:

"Dried, pressed potato meal fed with any of the three supplements used in the experimental feeding produced pork equal in quality to that produced by a ration of corn meal and tankage."

"Dried, pressed potato meal supplemented with old-process linseed-oil meal produced a carcass which for degree of finish excelled even that of the corn-meal hog, and the degree of finish on the other two lots was but little inferior to that of the check hogs."

"No difference could be noticed in any way in the curing qualities or in the excellence of the finished product cut from the hams, shoulders, and bacon sides of the hogs fed in the four different lots."

The experiment and the conclusions are described in detail in a professional paper, Bulletin No. 596, of the United States Department of Agriculture.

GILLIAM & BISBEE

are prepared to furnish the farmers and stockgrowers with all kinds of machinery and extras for their 1918 equipment.

There is going to be a shortage of extras and we would advise going over all machinery NOW and ordering all the extras you will need this season and have all machinery adjusted and ready for use when the time comes to use it.

Take our word for it, if you wait until the extras are needed you may not be able to get them.

**There will be no time
to waste in 1918**

LUMBER MOULDING

SCREEN DOORS SHINGLES

ALL KINDS OF BUILDING MATERIAL

GET MY FIGURES BEFORE PLACING
YOUR ORDER ELSEWHERE

H. C. GITHENS LUMBER YARD

MAIN STREET, HEPPNER, OREGON

A 6000-MILE TIRE

THE LANCASTER WIREGRIP

The Tire With a Thousand Claws

Insures greater mileage and costs but little more than ordinary tires.

L. E. HILL, Agent

Willow Street, Heppner, Ore.

MT. HOOD ICE CREAM

Pure -- Delicious -- Refreshing
Something Special Every Sunday

ALL SOFT DRINKS SERVED HERE
THE VERY BEST

THE PALM

LOWNEY'S CHOCOLATES BEST CANDIES

sions are described in detail in a professional paper, Bulletin No. 596, of the United States Department of Agriculture.

Hotel Makes More Improvements.

During the past two weeks the interior of the two upper stories of the Palace Hotel have been undergoing considerable improvement. Manager Wilkins is having every room repapered and later all woodwork will be varnished and the outside walls, in the hallways, will be calcimined. M. J. Bradford has the contract.

Wanted: First class man to handle pork cutting and curing. Inquire at this office.

Tuesday February 12th Is Last Day For War Risk Insurance.

Tuesday, February 12th is the last day upon which war risk insurance may be taken out by men who have entered the service of the United States Army and Navy.

Due to the fact that thousands of men in the service have overlooked or neglected to take out the insurance, the government is urging that every means be taken to bring the matter to the attention of the men before the time limit expires. To that end, the American Red Cross has taken up the work and will strive to get applications into the hands of the enlisted man's commanding officer by the 12th of February.