

ROAD AND FARM IMPROVEMENT

WORKING FOR WIDE TIRES.

Bureau of Road Inquiry Says Dirt Roads Are Improved Wonderfully by Their Use.

The United States bureau of road inquiry has been making a study of the width of tires prescribed by local and national authorities in various parts of the world. In France every freighting and market cart, instead of injuring the highway, improves it. Many of the tires are ten inches wide. In the four-wheeled vehicles in that country the rear axle is 14 inches longer than the fore, and as a result the rear wheels run on a line about an inch outside the level rolled by the front wheel. After a few loaded wagons have passed over a road the highway looks as if a steam road roller had been at work. A national law in Germany prescribes that wagons heavily loaded must have tires not less than four inches wide. In Austria the minimum for similar vehicles is 6 1/2 inches; in Switzerland, six inches.

In a number of states in this country laws have been passed granting rebate of highway taxes to citizens who use on lumber wagons tires not less than three inches wide. On toll roads in Kentucky and several other states, farmers hauling loads in wide-tired wagons are entitled to lower rates than those paid by the owners of narrow-tired vehicles.

At an experiment station it was demonstrated that it requires 40 per cent. more power to draw a load on a wagon with one and one-half inch tires than on one with a three-inch tire. With a dynamometer, careful tests were made with loaded wagons drawn over blue-grass sward. In a wagon weighing 1,000 pounds it was found that a load of 3,248 pounds could be drawn on wide tires with the same force required to move 2,000 pounds on narrow tires. Moreover, the wide tires did not injure the turf, while the narrow ones cut through it. In some parts of the country pioneers in the use of wide tires have had to stand a good deal of ridicule. The manifest benefit to roads, however, soon changes public sentiment.

The president of a leading wagon manufacturing company states that the demand for wide tires is increasing every year. Another company in the same line of business conducted a series of tests, and was convinced that on very hard roads the preference, as far as draft is concerned, is for narrow tires. In the effect upon the roads, however, wide tires have the advantage.—Barnum's Midland Farmer.

CONSTRUCTING PLANK DAM

Any Lumber That May Be Available Around the Farm Can Be Used for It.

I have a creek of clear spring water running through my place that I tried for a number of years to dam successfully. Land was so sandy that it was impossible to build an earth dam that would stand the pressure of water. The stream is swift, running at driest time of summer from eight to 12



FACE OF A PLANK DAM.

inches of water. Since it was possible to irrigate my farm from this creek, provided it was properly dammed, I constructed a plank dam similar to the one shown in cut, stones being used on either side in retaining banks for some distance back from the dam.

The sills or bed pieces are six by eight inches by 16 feet long, laid every three feet to sustain uprights and inclined timbers. The stones are laid for several feet back of incline to prevent washing of the sandy soil. Either timbers or plank floors should be laid in front to prevent the pitting out of the bed of stream, that will eventually undermine the framework. Such a dam may be constructed from any lumber that may be available.—T. A. Russell, in Farm and Home.

Prairie Dog Exterminator.

A letter from Sioux Falls, S. D., says that George Hatch, of Jerauld county, is probably the only man in the state or the northwest who follows the profession of an expert prairie-dog exterminator. He has slaughtered large numbers of the pests thus far this season, and has just been awarded the contract to "remove" the prairie dogs on what is known as the Rowley farm, near Alpena. The prairie dogs occupy a tract of about 90 acres on this farm, and number into the thousands. Hatch and his force of men will exterminate the little animals by putting gas in the holes and covering these up with earth. He has found this method to be very effective in ridding the country of the pests.

Government Harness Dressing.

The government harness dressing is made as follows: One gallon neatfoot oil, two pounds Bayberry tallow, two pounds beeswax, two pounds beef tallow. Put the above in a pan over a moderate fire. When thoroughly dissolved add two quarts of castor oil, then, while on the fire, stir in one ounce lampblack. Mix well and strain through a fine cloth to remove sediment; let cool and you will have as fine a dressing for harness or leather of any kind as can be had.

FREE DELIVERY OF MAILS.

Benefits of the System Could Be Extended More Generally If Roads Were Better.

At the recent international good roads convention at St. Louis, Hon. Frank E. Nevins, of the United States post office department, delivered an address in which he said:

"The establishment of the rural free delivery of mail throughout the country has produced a marked improvement in the condition of the highways. When there is a prospect of rural free delivery in a community, work immediately begins on the roads. There are now in operation 23,000 rural routes over which carriers travel 550,000 miles delivering mail to about 9,000,000 people. More than 15,000 bridges have been constructed over streams that would not have been built if it had not been for the establishment of the free delivery system. Nearly every portion of the country, where road conditions will warrant it, is now supplied with this service. But in many sections the bad condition of the roads or the lack of bridges prevents the extension of the service.

"Under the road laws of most of the western states at the present time work is done upon the roads in the fall by the various road districts, when there is no work to be done on the farms. In the spring this work disappears. Nothing permanent remains, and the roads are in as bad condition, or worse, than they were before. The cost of \$2,000 to \$6,000 a mile for the construction of hard roads in this western country is too great, in most instances, for road districts, townships and counties to bear; neither is it right that they should bear the entire cost. The public at large, which shares directly or indirectly in the benefits, should contribute to the expense. There never will be good roads in this country until the national government takes the initiative in this movement, and the respective states of the union join in with liberal contributions, and this again is supplemented by local enterprise. Continental Europe, England and Ireland are covered with hard broad pikes built at the expense of the government of those countries. No country in the world ever yet had or ever will have permanent and passable highways constructed and maintained by local authority.

"Sixty per cent. of the population of this country lives in the cities and villages; 40 per cent. lives in the country. It is not fair or just to place the entire burden of good roads upon the shoulders of the farmer. The general public shares directly or indirectly in the benefits, and should bear the expense of an equitable tax for this purpose on all assessable values. The weight of it upon the individual would then be as light as a summer shadow. While this specter of taxation may frighten some of our skittish country friends, and cause them to rear and plunge a little, they will find on closer inspection that the goblin is a harmless creation of the imagination. They will get back in benefits ten times more than they will pay out in taxes.

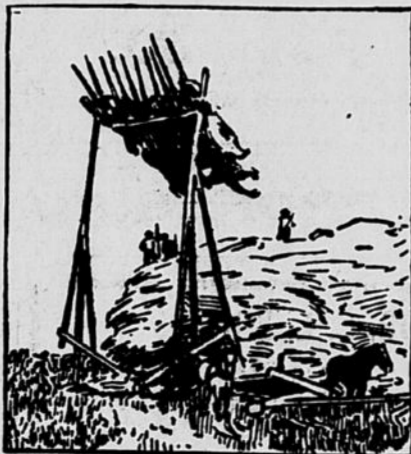
"Why some of our friends spurn government aid when it is offered them, I cannot understand. They claim to be opposed to it on principle, and can see no good in it. There are some people so constructed that when looking into a pool of water they can never see the sky and the clouds above it reflected on its surface, but only the mud at the bottom.

"This government never fails to do the right thing in the end. It will not fail to do the right thing in this instance. The impetus given to this movement by a few progressive statesmen who introduced measures in congress last winter authorizing national aid in the construction of highways, will ultimately produce the results aimed at. It cannot fail to do so, because the public interest demands it; the progress of the age demands it; the welfare and development of the country at large demand it, and it is bound to come in spite of those who raise their voices in opposition to it."

BIG CALIFORNIA HAY FORK.

It Travels Over Vast Fields and Piles Up Stacks Hundreds of Feet in Diameter.

In California the ranchmen harvest hay with a giant fork, which travels over vast fields and piles up stacks as



A MIGHTY PITCHFORK.

large as skyscraper business buildings. California has an area of 150,000 square miles, and a greater acreage of hay, wheat and other grains, fruit and vegetables than any other state in the union. In order to harvest these vast crops California does not send out a call for 20,000 men, like Kansas, but relies on huge machines.

It is estimated that a big California hay fork will harvest a whole acre in the same time that an ordinary pitchfork in the hands of an ordinary farmer would clear a square rod.

BIG ANTARCTIC APPETITES.

Arduous Work in Extreme Cold Makes Men Hungry to the Point of Voracity.

Reports from the Discovery, which has been exploring the antarctic regions, give interesting particulars as to the appetites which come to half-frozen men on long sledge expeditions, says the Chicago Daily News. The chief articles of diet on these excursions were pemmican of various kinds, with biscuits and tea or cocoa, the latter for preference, being more sustaining. Chocolate was also used. The chief trouble the sledge parties had to contend against was that the quantity of food allotted to each member of the party was so small in bulk that it failed to give a sense of satisfaction on long trips, especially toward the end. Hunger proved a dreadful nightmare, some of the men having horrible visions of tempting dishes. It is questionable if anything could compare in the way of hardships suffered to this form of modified starvation on such trips.

Whenever a sledge party returned to the ship that was the occasion for the consumption of huge meals. It is no exaggeration to say that one's appetite bordered on the voracious. The arduous work of sledge pulling, with deficient bulk and variety of food, and the depressing influences of the vast waste of ice and the monotony of general existence combined, made men lose weight and look lean and hungry on their return. But it did not take long for any one of them to make up weight after getting to the ship, where the unlimited supplies of food, added to the rest, rapidly produced corpulence.

As an example of the appetites of the natives some of the habits of the giant petrel may be mentioned. It will feed on offal until it is so absolutely gorged as to be unable to rise off the ice in flight. Then it runs along the ice, if chased, spreading its wings out as sails. Before being captured, however, the petrel will suddenly stop and disgorge a quantity of semi-digested food, and then go off on a run again. If overtaken a second time it will repeat the performance, and when once it has got rid of its dinner flies away.

DRAUGHT DOGS OF HOLLAND

Belgian Mastiffs Raised to Do the Work of Donkeys Among the Dutch.

In Holland and Belgium the dog occupies the place which the donkey does in several other countries. In the former the sight of a couple of dogs dragging along a pushcart loaded with vegetables, flowers or shining milk cans is a familiar one, says the New York Tribune. They trot along underneath the cart, within easy reach of the blunt toe of the sabot of the woman who walks behind it to guide it by the handles attached at that point. In Belgium the dogs are hitched in front, as the Russians attach their horses to their droskies, three abreast, and are guided by a pair of rope reins fastened to a muzzle about the nose of the dog in the middle. Recently the National Cart Dog association, organized to regenerate the original race of Belgian mastiffs, held its first exhibition of cart dogs. The Flemish breeders have found that in crossing the Belgian mastiffs with the Great Danes, with the idea of increasing the size of the cart dogs, and so securing additional strength, they made a mistake. The result proved to be animals with weak hindquarters and disproportionate limbs. Now they are endeavoring to revive the original stock.

The women and dogs of these two little countries are another evidence that human and canine nature are the same the world over. When one sees the white-capped Belgian milk-woman with her dogs standing near a well, the woman having a battered can slung on her forearm, one instinctively becomes suspicious. The suspicion is confirmed when one discovers a policeman detaining at the roadside a pair of sulky-faced milkmaids, with their dog team and cart laden with slender-necked milk cans, while he jots their names in his little book against a charge of watering milk. When the cart comes to a standstill the dogs are no longer draught animals, but dogs. They sit or lie complacently down and loll their tongues from their open mouths. Apparently they have forgotten that they are animals intended for human companionship, but condemned to hard labor for life.

In the Drug Store.

A tall man with dust on his shoes and the tan of Jersey summers on his face entered a drug store near the Barclay street ferry the other afternoon, followed by a weary-looking little woman.

"Gimme a sulphonal powder," he said.

"Five, 10 or 15 grains?" asked the clerk.

"Grains? I didn't say nothin' about grain," replied the tall, lean man from Jersey. "I said gimme a sulphonal powder."

"I understand," snapped the clerk, "but what I am trying to get at is, do you want a five-grain dose, a ten-grain dose, or a 15-grain dose. Do you want it for an adult?"

"Naw," answered the Jerseyite, "I want it for a woman."—N. Y. Sun.

Arabian Pearls.

Owing to the fact that pearls are so popular as an ornament with the people and to their almost universal use thereabouts, the local demand almost entirely absorbs the output of the pearl fisheries of Arabia and very few pearls find their way to European or American markets. There are quite extensive pearl fisheries in the Persian gulf, the entire output going to Bombay.

NOTES ON NATIONALITIES.

Tame snakes are used in Morocco to clear houses of rats and mice.

Russia has the most rapidly increasing population of any country in Europe.

Dogs in Hamburg are taxed according to size. The bigger the dog, the higher the tax.

The language of the republic of Hayti is French, while the language of the republic of Santo Domingo, on the island of Hayti, is Spanish.

The average age of the Japanese navy is older than that of any other navy of the world. No one over 20 years old is accepted for enlistment. The average height is five feet four inches—less than the average height of any other navy in the world.

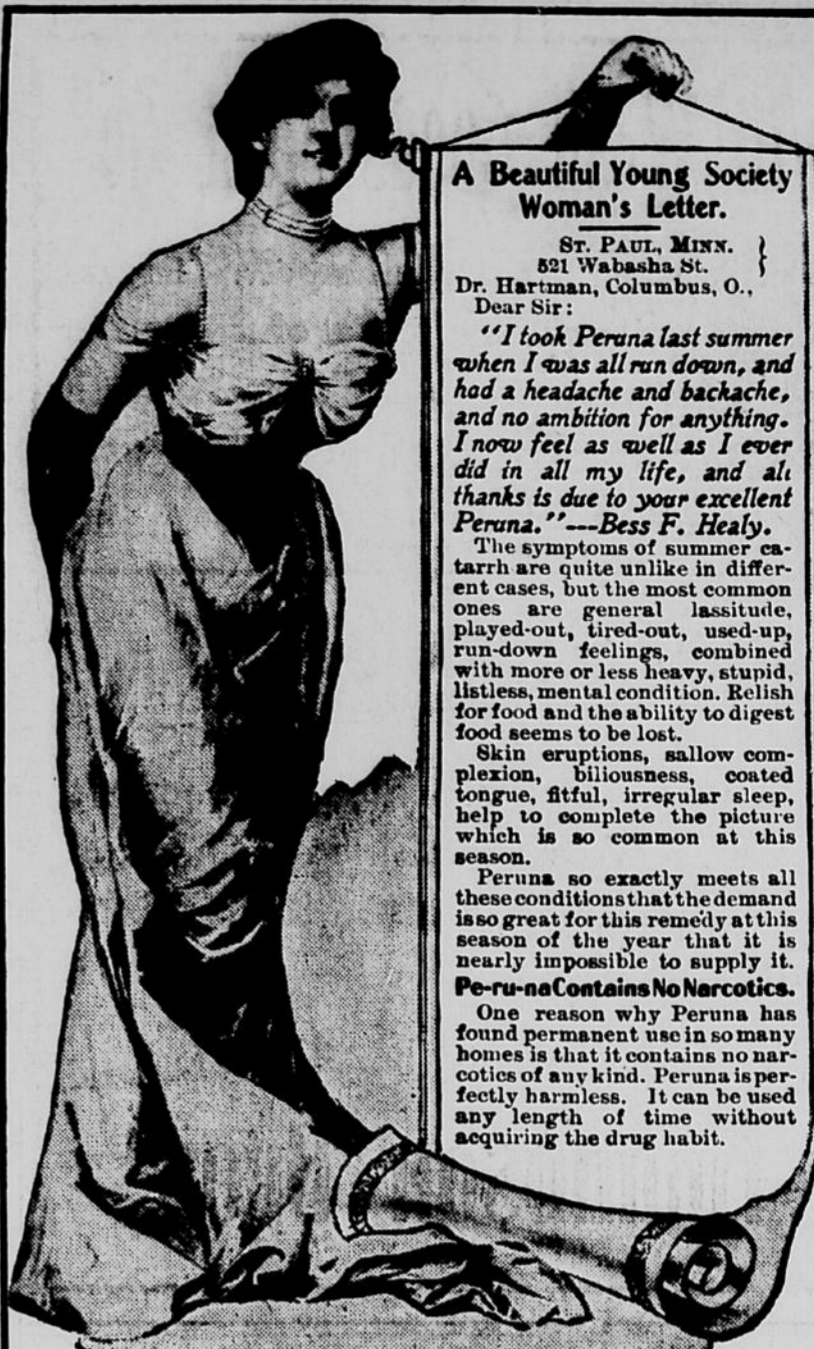
A German society has lately published an interesting paper on the subject of ecclesiastical anathemas launched in the middle ages against animals. Among the maledictions cited is that of a pastor of Dresden, who in 1559 cursed the sparrows for distracting his congregation.

Canada's Attractions.

The Dominion Exhibition is one that attracts hundreds of thousands each year. This year it will be held in Winnipeg, Manitoba (Canada), and with the material assistance given it by the Dominion Government, it will be one of the most successful ever held. Besides the number of special attractions that will be offered, there will be brought together an exhibit of the Agricultural and Industrial resources of Canada such as is rarely attempted by any country. Visitors will be there in large numbers from the United States, owing to the low rates offered by railways, connecting with the Canadian roads. It is expected that Hon. Clifford Sifton, Minister of the Interior, will be there on the opening day to declare the exhibition open. A splendid opportunity will be afforded by this exhibition to meet friends. Hotel accommodations will be quite ample.

Frederick Cogswell, of Cambridge, Mass., who has just resigned as a superintendent of schools, was an instructor for fifty years.

John O. Heald, of Orange, N. J., offered \$100 for the best Yale song, but none received.



A Beautiful Young Society Woman's Letter.

ST. PAUL, MINN. }
521 Wabasha St. }
Dr. Hartman, Columbus, O. }
Dear Sir:

"I took Peruna last summer when I was all run down, and had a headache and backache, and no ambition for anything. I now feel as well as I ever did in all my life, and all thanks is due to your excellent Peruna."—Bess F. Healy.

The symptoms of summer catarrh are quite unlike in different cases, but the most common ones are general lassitude, played-out, tired-out, used-up, run-down feelings, combined with more or less heavy, stupid, listless, mental condition. Relish for food and the ability to digest food seems to be lost.

Skin eruptions, sallow complexion, biliousness, coated tongue, fitful, irregular sleep, help to complete the picture which is so common at this season.

Peruna so exactly meets all these conditions that the demand is so great for this remedy at this season of the year that it is nearly impossible to supply it.

Peruna contains no narcotics. One reason why Peruna has found permanent use in so many homes is that it contains no narcotics of any kind. Peruna is perfectly harmless. It can be used any length of time without acquiring the drug habit.

Thousands of women suffer from pelvic catarrh and catarrhal nervousness and don't know it. If you feel fagged out, begin at once taking Dr. Hartman's Peruna. It will relieve your catarrhal affliction and all your organs will be restored to health. Buy a bottle to-day, as it will immediately alleviate your case.

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The Kind You Have Always Bought, and which has been in use for over 30 years, has borne the signature of *Chas. H. Fletcher* and has been made under his personal supervision since its infancy. Allow no one to deceive you in this. All Counterfeits, Imitations and "Just-as-good" are but Experiments that trifle with and endanger the health of Infants and Children—Experience against Experiment.

What is CASTORIA

Castoria is a harmless substitute for Castor Oil, Paregoric, Drops and Soothing Syrups. It is Pleasant. It contains neither Opium, Morphine nor other Narcotic substance. Its age is its guarantee. It destroys Worms and allays Feverishness. It cures Diarrhoea and Wind Colic. It relieves Teething Troubles, cures Constipation and Flatulency. It assimilates the Food, regulates the Stomach and Bowels, giving healthy and natural sleep. The Children's Panacea—The Mother's Friend.

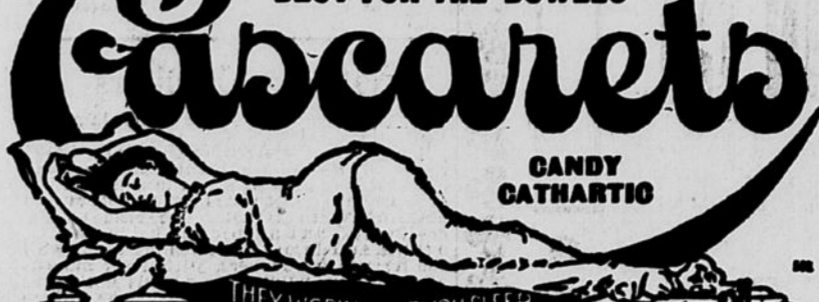
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