

AGRICULTURAL HINTS

ORGANIZED EFFORT.

Good Roads Agitation in Wisconsin Assumes Practical Form.

The Wisconsin division of the Century Road Club of America has sprung a sensation. Ever since the publication of the fact that the Century Road club members were going to shame the great state of Wisconsin into building better roads, there has been a real interest manifest in the project. This new-born activity is not confined to Milwaukee, but extends throughout the state, as wide publicity has been given to the plan of building better highways.

Due credit should be given State Centurion H. L. Marshall, whose untiring energy is responsible for the new movement. Mr. Marshall has outlined the work in an ingeniously constructed circular addressed to local centurions. It is proposed to petition the state legislature to appropriate the sum of \$500,000 for road improvements. For every dollar given by the state, another dollar will be contributed by riders of wheels. The whole arrangement is exceedingly comprehensive. For the purpose of obtaining signatures to the petition, the

We want two State roads through the State, built and maintained by the State.

ARE YOU WITH US?



Address: **H. L. Marshall**
Milwaukee, Wis.

STATE CENTURION,
WISCONSIN DIVISION
CENTURY ROAD CLUB OF AMERICA.

AN IDEA FROM WISCONSIN.

state will be divided into districts, co-extensive with the political divisions set apart for the election of state assemblymen. Each of these districts will be in charge of a captain, who will see to it that his lieutenants obtain the signatures of every citizen who is interested in road improvement. It is proposed to have each assemblyman head the list in his respective district, so that the legislature will simply be petitioning itself.

Every wheelman and wheelwoman who signs the petition agrees to give one dollar for road building as soon as the state has made the appropriation. When the monstrous petition is completed, it is proposed to have 1,000 wheelmen visit the state capital and present the document to the legislature in support of a good roads bill. Of course the local centurions in all the towns will lead their respective delegations to the capital. As an aid to the enterprise, State Centurion Marshall has caused to be made a sketch of the state in outline, with the proposed roadways running through it. A cut of the design is published herewith, and it will be used on the backs of envelopes by all enthusiastic cyclists and their business friends. Speaking of the project, State Centurion Marshall said:

"Members of the Wisconsin division have long realized that only by active work could anything be accomplished in the way of road improvements. In such an enterprise we are dealing with politicians and the only way to treat with a politician is to allow him to make no promises. Performance is the thing, and we propose to make the politicians perform. All the talk in the world would not build a mile of road. What you need is sand, and perhaps gravel, not to disdain a few rocks to help out the plan.

"I have realized all along what a great task this is, but I think it can be accomplished. Our petition cannot be ignored by the legislature, when it is signed by all the members before it is presented. It takes a nifty politician to deny his own signature. We who ride only on the highways are competent to judge of what is needed. We propose to give dollar for dollar with the state, and shame the commonwealth into an act of civilized progress. The design I have made is for use on the backs of envelopes, and we want all the members of the legislature to begin using these designs, even if we have to present them with their stationery. We do not expect to do much talking about this matter, except where it will promote the project. What we need more than anything else is a little action."—Cor. Cycling Gazette.

A subscriber has two cows that give bloody milk after calving. This is caused by blows or commencing inflammation from other causes; local congestion, with increased flow of milk. Give a dose of salts, restrict the diet and rub daily with compound tincture of iodine with three times its bulk of water.—Western Plowman.

DESTRUCTIVE FUNGUS.

How to Treat Brown-Rot on Plums with Considerable Effect.

It is scarcely necessary to repeat the general remarks on treatment for fungus diseases published in several previous bulletins. But concerning brown-rot (*Monilia fructigena*) we may say that only the most persistent effort can hold this fungus in check. As all growers have observed, the decayed fruits hang to the twigs and persist over winter. It is from these in the early days of spring that an abundant crop of spores are borne, and the petals of the flowers, young leaves, and even many branches, are attacked. These mummified fruits also hang on all summer and continue to produce spores. Hence, by the time the fruits become half-grown or begin to mature, the infecting spores may come from the old decayed fruits of the previous year or from more recent infection on the young growth of the current year. Whenever the fruit has become badly attacked treatment is quite useless.

The proper plan is to remove all decayed fruit from the orchard when the trees are free from foliage, as it can be easily seen at this time; then, before the buds swell in the spring, wash the trees thoroughly with a solution of concentrated lye or of sulphate of copper. The first solution should be made by dissolving eight cans of lye in 50 gallons of water, and the copper sulphate (bluestone) in 50 gallons of water. I consider the lye preferable, but the latter may be somewhat pleasanter to handle. This washing is very important and perhaps does as much real good as all later work.

The later washings should be given as follows: Weak Bordeaux just as color shows plainly in the bloom-buds, and repeated soon as bloom has fallen. If the work is well done to this point very little infection will have survived. Concerning value of later sprayings I much in doubt. If the early washing is not well done, I have almost no faith in later treatment.

All washing or treatment of orchards should be done with a spray-pump. Poor, half work is usually a dead loss.—William B. Alwood, in Bulletin Virginia Experiment Station.

BEST SOIL FOR PEARS.

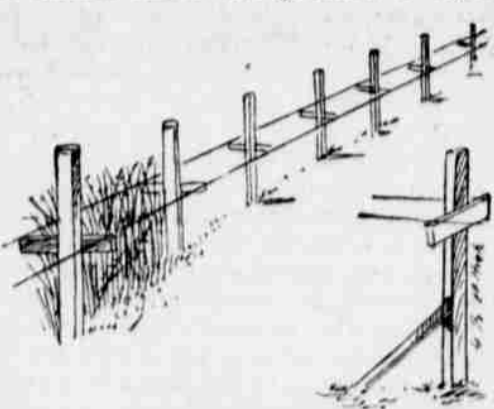
Grow Nicely on Clayey Ground and on a Hillside.

Clay soil is considered best for pear culture, and still it should not be too tenacious and sticky. A pear orchard will not thrive so well, says Green's Fruit Grower, on any soil that has not a clay subsoil. Next to a friable clay loam, a gravel loam is most desirable. A light, sandy soil is the least desirable of any, and yet pears can be grown on sandy soil. Standard pears can be planted 20 to 30 feet apart, according to circumstances and habits of growth. If planted 30 feet apart, dwarf pears can be planted between the rows each way. I prefer a standard pear for general orchard culture, for the reason that they require less fertility and cultivation, and for the further reason that they are longer lived and make larger and more permanent trees. When the question came up for a vote, however, before the Western New York Horticultural society, we found that the dwarf pear was the favorite for orchard planting or for garden. Dwarf pears have the advantage of coming into earlier bearing. The dwarf pear is not short lived. It requires more pruning and more attention than the standard pear. Many varieties do better on the dwarf pear than on the standard. I should not locate a pear orchard or any other orchard in a low piece of ground. I should locate on a hillside. The pear is easily transplanted. I transplant several thousand every spring, and they do not lose on an average one out of one hundred trees. Pear trees come into bearing earlier than the apple.

RASPBERRY VINES.

How to Keep Them from Sprawling All Over the Lot.

My way is to firmly drive four-foot stakes one rod apart and nail to each, 30 inches above the ground, a short



TRAINING RASPBERRY VINES.

piece of plank two feet in length and saw a notch close to each end of the upper edge. In these notches firmly stretch No. 16 wires and brace back the end posts. The accompanying illustration makes perfectly clear this simple and effective way of doing the work. The advantages of keeping raspberry and blackberry vines from sprawling all over the lot will be best appreciated by those who have tried this method.—Farm and Home.

Is it true that cows milked nearly up to the time of calving, will drop smaller calves? asks a subscriber. That is the theory of some, but we have never seen any evidence of its truth.

FARM AND GARDEN.

ROAD ENGINEERING.

The Science Should Be Taught in Every Agricultural School.

The suggestion that the money deposited in postal savings banks, if established, should be loaned for the purpose of building good roads has been favorably received in most quarters; but F. H. Ray, a pioneer good roads man of Montana, thinks that public debaters are already large enough, and that more knowledge of the best methods should be acquired before undertaking such general and elaborate work. He says, in the L. A. W. Bulletin:

"Ignorance is far more responsible for bad roads than lack of expenditure. Without disparagement of the many honest, well-meaning road officers, the fact remains that road funds are largely misspent because officials have had no adequate training for such work. Many road reformers believe the imperative prelude to a general system of good roads, economically constructed and well maintained, is a sufficient number of resident, competent road engineers and country road supervisors, and that no bonding should be considered before a county has road officers who demonstrate their ability by building a few miles, at least, of permanent good roads with the funds annually raised by taxation.

"How is it possible to use road funds wisely, over extensive area, until a majority recognize that special skill is required for that work, and elect thoroughly qualified officials? Is not the most urgent need therefore, for competent road-builders, instead of greater expenditure? Would not efforts to provide such trained officials yield far more satisfactory and less costly results than creating road debts? If every state had one or more schools doing what the agricultural college of Rhode Island is accomplishing, viz., giving a practical course in road-making, and if in addition, after, say 1899, no one was eligible to a road office who had not graduated with a good record from such schools, would not the great obstacle to better roads be removed? . . .

"Finally, counties that are equipped with competent road officers should, before borrowing, exact a cash instead of a labor road or poll tax, and remove the discrimination which exempts men aged 45 and up. If, then, the community wish to bond, they should observe two precautions—first, place the interest burden only on those lands benefited by the improved highway, and, second, make the bonds short time and payable in legal tender."

BROAD-TIRED WAGONS.

Result of Tests Conducted at the Missouri Experiment Station.

The Missouri experiment station has made a large number of experiments during the past two years with the draft of broad and narrow-tired wagons. These tests have been made with the ordinary narrow-tired wheels and with six-inch tires, on macadam streets, gravel and dirt roads, in all conditions, on meadows, pasture, stubble and plowed fields both wet and dry. Bulletin No. 39 of the station, by Director H. J. Waters, gives the results of these tests. The broad tires pulled materially lighter on the macadam street and the gravel roads. Also on dirt roads in all conditions except when soft or sloppy on the surface, underlaid by hard road-bed, and when the mud was very deep and sticky. In both of these conditions the narrow tires pulled considerably lighter. It should be borne in mind, however, that the roads are in these conditions for a comparatively short period of time, and this at seasons when their use has naturally been reduced to the minimum. The tests on meadows, pastures, stubble land, corn land and plowed ground in every condition, from dry, hard and firm to very wet and soft, show, without a single exception, a large saving in draft by the use of the broad tires.

The bulk of the hauling done by the farmer is on the farm, in hauling feed from the fields and hauling manure from the barns, etc. The actual tonnage hauled to market is insignificant in comparison with that hauled about on the farm, inasmuch as a large proportion of the products of the average farm is sent to market in the form of live stock or its products. It is clearly shown by these experiments that in many instances where the narrow tire is very injurious to the road or field, the broad tire proves positively beneficial when the same load is hauled. When it is considered, therefore, that the average draft of the broad tire is materially less than the narrow tire, and that the injury done to the roads and farms by the narrow tire can be almost wholly corrected by the use of the wide tires, there remains no longer any good reason for the use of the narrow-tired wagons. These experiments further indicate that six inches is the best width of tire for the farm and road wagon, and that both axles should be the same length, so that the front and rear wheels shall run in the same track.—Prairie Farmer.

The Father of Ruts.

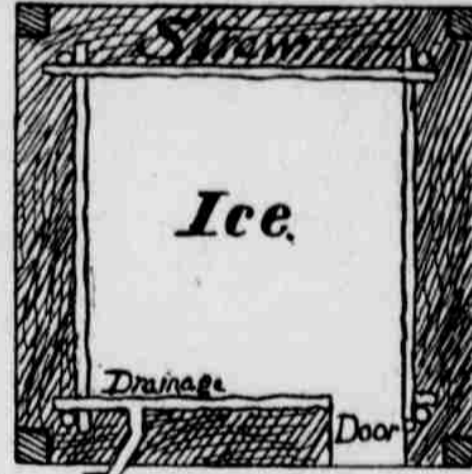
If water stands on a road it soon ruins it; ruts collect and retain water; the narrow tire is the Father of Ruts.—Good Roads.

HILLSIDE ICE HOUSE.

It Costs But a Few Dollars to Build a Good One.

From a steep hillside or, better yet, a creek bank facing the north, excavate, as for a dugout, a room about a foot larger each way than is required to hold the amount of ice to be packed. If the bank or hillside is steep enough, the drainage question is easily disposed of by digging the front end of the cave bottom lower than the remainder. Set a strong post at each corner of the room long enough, in every instance, to reach the top of the ground. With rough lumber of any kind build up the sides and back by putting the ends of the boards behind the corner posts. This will prevent caving. Then set four more posts just a foot inside the first set. These should correspond in length to the others. The floor inside this last set is a foot or so higher than the remainder. The house is to be entered from the front, where a door should be made. The roof is composed of rough boards or even straw; anything that will turn sun and rain.

In packing the ice, straw and chaff may be used. Begin by taking poles cut to the required length, and build-



FLOOR PLAN OF ICE HOUSE.

ing up the inside wall of the ice house as you would an old-fashioned railpen. Build about a foot at a time, then pack in the ice, filling in all the chinks between the cakes with ice and chaff. Then pack straw between the two walls tightly. It is much handier, in taking out the ice, if the layers are kept distinct. When full, cover over with straw, leaving a space between the top and the roof. There is little trouble in keeping ice if the drainage is good, which this sort of a house insures, provided there is a way for the accumulating water in the bottom to escape. This is easily accomplished by means of a few joints of tile or a wooden trough.—Orange Judd Farmer.

A FAIR PROPOSITION.

According to It Good Roads Are Very Easy to Secure.

A Pennsylvania paper says that a competent engineer and contractor offers to give bonds to gridiron Lancaster county with first-class macadam roads within five years, so that there won't be a farmer who will live over a mile and a half from one of these roads on any side of him, and three-fourths will live immediately on them, provided a four mill tax per annum on the county's valuation (outside of Lancaster and Columbia) be paid him for ten years. This looks like an easy way to get good roads. The county is about 28 by 30 miles, so it would require nearly 500 miles of road to cross it in both ways, every three miles. But the contractor allows for building 600 miles, as follows:

EXPENDITURES.	
300 miles, 15 feet wide, at \$2,000.....	\$600,000
300 miles, 10 feet wide, at \$2,000.....	600,000
Interest on annual expenditures.....	250,000
Repairs for 5 years.....	100,000
	\$1,550,000

RECEIPTS.	
Tax 4 mills, annually for 10 years on valuation, \$65,618,841.....	\$2,664,670
Interest on annual receipts.....	588,537
	\$3,253,207

Deduct expenditures..... 1,850,000
Net profit..... \$1,403,207
And this on a tax of only four dollars on each thousand of valuation.—L. A. W. Bulletin.

Preparing Butter for Market.

There is one point to which I want to call your attention in regard to working and putting up the butter. Adopt a trademark. Then, when your butter goes to market it will make no difference in what part of the country you find it you will be able to swear to it. Make it uniform and make it look attractive. If it only catches the eye of one here and there it makes a market for your butter. Print all prints alike. I advocate print butter for the farmers because they are able to do it better and it helps the trade. Turn out a good quality of butter, make it look nice and send it to market and you farmers will have no reason to complain of low prices because people will find you are selling a good article that looks nice when it comes onto the table.—Farmers' Review.

Young Pigs in the Orchard.

Orchardists will find a lot of vigorous young pigs next spring almost as good as an extra hired man. They can be turned loose in the orchard to root at will or kept in pairs in small movable pens about 14 feet square, built close around the tree. By this latter plan they will do some very thorough work. There is small profit in the pig unless he works for a living.—Dakota Field and Farm.

SMARTER THAN FOUR WOMEN.

Junk Man Who Bought a Fine Wardrobe for Eighty-Six Cents.

"Can you recommend an honest junkman?" asked Mrs. McGosh the other day of one of the pensioners about her place. "We're going to move you know, and we have a raft of old stuff I should like to dispose of."

"An honest junkman!" was the pessimistic reply. "I can send you a junkman, but he won't be honest."

Honest or not, his "junkship" came at the time appointed.

"I hear you are going to move, ain't it?" he remarked as he waddled in at the side gate. The four women of the family were on the back steps to meet him, each and every one of them having vowed to be as sharp and keen as a razor in the transactions to follow, and all together hoping that the dealer in old clothing and other cast-off articles would not get the better of them in the bargains to be driven for the old suits and dresses, the old iron, the bottles, rags and other stuff piled up in the separate heaps on the cellar floor. The stuff they had to offer had cost hundreds of dollars when new, and they had figured it out that not even a junkman would think of offering less than \$20 for the lot. At the end of their bartering they had a different idea, and the junkman had their stuff for a good deal less, too, than \$20.

"Come on, junkie," said the leader of the quartette of females, starting away to the cellar. "We'll start in with the cheap things first. What do you pay for rags?"

"Half a cent a pound," was the reply. Three or four bags that must have weighed more than 200 pounds were produced and knocked down at half a dollar, the junkman cutting the weight by working the short arm of his steel-yard under his elbow.

"Now we'll sell the old clothes," declared one of the ladies, dragging forth an opera cloak of blue velvet with ostrich feather trimming and lined with yellow satin. "How much for that?"

"I'll weigh it and see," replied the junkman, and when he had done so offered the grand sum of five cents.

"What!" exclaimed the young woman in excitement; "five cents for a garment like that!"

"Dot's no garment mit me," replied the junkman complacently. "everything is rags, and I give you pig weight."

"Well, how much for this?" asked another of the women, hauling forth a cast-off dress suit once worn by her father.

"Ten cents," replied the junkman, making a recklessly extravagant guess after "hefting" the suit in one hand.

"Well, I declare!" gasped the young lady in astonishment. "Five cents for a silk-lined opera cloak as good as new except a little out of style, and ten cents for a full dress suit!"

"Vell, don't sell 'em if you don't want to," said the junkman unconcernedly. "I can't stay here, though, if you don't want to sell."

"We do want to sell, but we thought you would give something like what things are worth."

"I give all they are worth—to me," replied the junkman. "Ef you vant that, I take it; ef you don't, I go."

The result was that the junkman got the opera cloak and the evening suit for 15 cents—less by far than he paid for 200 pounds of rags—and took away besides cut glass bottles and finely wrought chandeliers that couldn't be duplicated for hundreds of dollars. When the accounts were finally settled up the junkman paid over 86 cents for his plunder and the four women of the McGosh family looked at one another in foolish amazement.

"Well, we've got rid of the old stuff at any rate," said the mother, "and if that miserable junkman did cheat us it is better than having our new house littered up with a lot of plunder that is no use to anyone."—Chicago Times-Herald.

Over-Indulgence to Children.

One of the greatest mistakes that parents make is the over-indulgence to children. Being too indulgent is a great mistake and in time works injury. The child who has his every wish and whim gratified grows up self-willed and arrogant and overbearing, which at times is a source of trouble to everyone in the house. He looks upon his parents as menials, loses that respect, love and obedience due the parent, and when he goes out in the world to make his living he finds that the world can get along without him, and will not put up with his nonsense. This is where the injury works. He then discovers, but too late, that his training has been wrong. Therefore, parents, see that you rear your children that they may be a benefit to themselves if to nobody else.—Detroit Free Press.

To Braise a Ham.

Put the ham into water the night previous to cooking, the next day wash it in warm water; trim it by cutting away all the yellow fat and rusty parts; take off the knuckle and pare down all the under part; put it in a stewpan and just cover it with water; lay in a slice of beef cut into pieces, a few onions, a fagot of sweet herbs, three small carrots and a little allspice; simmer from three to six hours—it must depend entirely upon the size and weight. Take out the ham and skin it; glaze and serve on a puree of vegetables. The braise may be made into a rich, brown soup, thickened and flavored with wine; it may serve also for the flavoring of soups.—Ladies' World.