

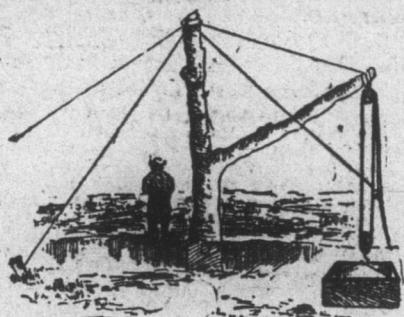
## HELPFUL FARM HINTS

### SUGGESTIONS FOR THE AGRICULTURIST AND STOCKMAN.

New System of Barn Building—Farmers Should Fertilize Their Brains—How to Relieve Choking Cattle—Something New in Fencing.

**The Plank Barn.** A new system of barn building has been in use in Central Ohio for a series of years, which Waldo F. Brown describes as giving a barn a far greater strength than the old plan of heavy timbers mortised and tenoned together, with a saving of about half the frame timber and more than three-fourths of the work of framing. This barn is called "the plank barn," and the entire frame is made of two by eight planks, except nails, pins and rafters, which are two by six. There is, according to the New England Farmer, not a mortise or tenon in the building, but it is put together with spikes and carriage bolts, and two men will form a large barn ready to raise in four days, such a one as it would take them four weeks to frame on the old plan. At \$2 per day for carpenters, the saving in wages would be \$80 in framing the barn, and as a farmer must board his carpenter, counting the board of two men for twenty days at 50 cents each per day, we have saved \$20 more, making the saving in labor and board \$100, besides the saving of lumber.

**Brains Did It.** To get out a lot of muck and dump it on the upland to drain while the drought lasted, this was the question.



HOW THE MUCK WAS HANDLED.

The swamp was too soft for a team and human muscle was too expensive to lift it into a cart and wheel it ashore. But brains did it. A tree growing in the woods near by was cut, and its odd shape made to serve as a crane. This could be swung out fifteen feet over the muck, loaded and swung over the dry ground like distance, dumping in piles or on to carts. What more could be asked for? And it works as well as if it cost \$5. The only blacksmith work required is a ring at the top to fasten the stay wires to.—*Eden in American Agriculturist*.

**A Good Soil to Cultivate.** R. S. Kingman, speaking of the better education of agriculturists, well says: "Fertilize the brains of the farmers with good practical knowledge, then they would be better prepared to fertilize their farms intelligently." Every lawyer in the land must fertilize his brain or he will fail. Every doctor, every banker, every merchant, every editor must do the same or they will fail. And yet, in the face of all this, and in face of the fact apparent on every hand that it is the brainiest farmers who succeed best, there can be found farmers in every neighborhood who really think that it does not pay to cultivate brains in farming. They think it is money thrown away to buy books, papers or attend conventions or farm institutes. If they thought these things paid, we would see them hard at it, for they want money bad enough. Good thinking lies under the success of every man in all kinds of business. A man cannot do good thinking unless he feeds his mind with good thoughts.

**A Portable Fence.** It is often more economical to pasture off a piece of rich fodder than to cut it and wheel it away to the sheep, or other stock. The lack of a fence often prevents this. A portable fence can be made after the suggestions given in the sketch, which is from the Orange Judd Farmer. A few panels of this will inclose sufficient feed for a day's cropping, and can be shifted to new ground the next day. If sheep are to be thus folded, an extra board will be needed in each panel. These panels may be 12 or 14 feet in length, well braced to keep the fence firm as to lengthwise motion. The crosspieces at the bottom of the uprights should be long enough



SOMETHING NEW IN FENCING.

to keep the fence firm the other way. The construction is plainly shown in the illustration.

**Corn on Outside Rows.** Many farmers plant two or three rows of potatoes on the outer edges of the cornfield, so that in cultivating without treading down the corn, says the Connecticut Farmer. But the potatoes are worse injured by this trampling than the corn is, and scattered as they are on these outside rows, it requires extra labor to harvest them. We have noticed also that when the corn was planted out to the end of the rows, the outside hills, despite the injury by trampling, had more grain in proportion to their stalks. This is undoubtedly because the outside rows get more sunlight. It is a mistake to plant corn thickly. Three grains in a hill, if all grow as should, are better than more, for if four stalks each have an ear the size of the ear will be smaller, and it will make greater work in husking and handling the crop, with little or no increase of grain.

**Microbes in Plant Life.** Prof. Wiley says that "one of the grandest discoveries of modern science" is the agency of the microbes in enabling plants to absorb from the air the nitrogen which is the chief factor of their growth. The theory was first suggested by Pasteur, and it is thought to be fully confirmed by the researches of independent investigators. If it

does not deceive expectation, it will completely revolutionize agriculture. To increase the growth of plants it will only be necessary to feed their roots with water containing the proper microbes.

### To Catch Chinch Bugs.

Mix kerosene and salt—one quart to the bushel—and stew it in a row two to three inches wide around the field, in the middle of a space ten to fifteen feet wide, devoid of vegetation by plowing and harrowing. At intervals of three rods bore holes eight inches deep with a post auger, trimming off the tops with a knife to make them smooth and funnel-shaped; fill half full of water and pour in a little coal oil. The bugs strike this salt track, turn aside to go by it, and roll into these holes, whence they can be dipped out, more kerosene added and the pile burned. Keep the holes smooth and fresh, pour a little kerosene on the salt once a day, and with a bright boy watching every day to keep things in shape, the bugs can be kept off. In this way I have saved a sixty-five acre field of corn, although it was next to a wheat lot that was badly infested.

### Clover and Potash.

Analysis of crimson clover shows that it has a large proportion of potash. Some of the failures to grow it, especially on sandy soil, are probably due to a deficiency of potash. The common red clover frequently falls from the same cause. A dressing of wood ashes, or, where this can not be had, of muriate of potash, will secure a seeding where without it there have been repeated failures of clover to catch. Heavy soils have usually a considerable amount of potash, but even on these a potash dressing often gives beneficial results, for presents the mineral plant food in available form.

### Ripening Early Tomatoes.

When the tomatoes commence to turn white and just have a yellow tinge, they may be gathered and placed upon a table in the sun. In a day or two, after exposure to the sun, they will be ripe. Only the largest and whitest ones should be taken, the small or green ones will wilt if taken off too early. This is the way the early tomatoes are ripened, when they command 80 to 90 cents per peck. After the price falls to 60 cents per bushel, the fruit is allowed to ripen on the vine. Fruit ripened on the vine has a firm feel and the meat is solid and of better flavor than green-picked fruit.

### Choking Cattle.

A correspondent of "Practical Farmer" gives the following method of relieving choked cattle: Take of fine cut chewing tobacco enough to make a ball the size of a hen's egg. Dampen with molasses so it adheres closely. Elevate the animal's head, pull out the tongue and crowd the ball as far down the throat as possible. In fifteen minutes it will cause sickness and vomiting, relaxing the muscles, so that whatever object may be in the throat will be thrown up.

### Protects the Little Chicks.

In feeding chickens, provide pen or netting like the illustration (or it may

### DEVICE TO PROTECT CHICKS.

made of slats) under which the little chicks may without being crowded away by the larger ones. It can be raised as the chickens grow, and it is one of those clever little devices that help to secure the poult's profits.

### Harvest Drink.

The following is an English recipe for a favorite haymaking beverage:

Put one pound of medium oatmeal in a milking pail, with the rind of two lemons cut as thin as possible; cut away the white pith and remove the seeds, then slice the two lemons. Pour two gallons of quite boiling water over the meal, stirring well, and a pound of best sugar; stir until the sugar is dissolved and strain off into another pail. If made overnight it will be quite cold, in the hottest weather for use next day.

### Oil for a Dairy Floor.

Occasional slight, very slight, dressing with hot linseed oil will keep a wooden creamy floor absolutely impervious to water and milk, easily cleaned and quick to show any lack of proper attention, says Hoard's Dairyman. We do not argue the question for or against any style of floor, but state the fact that it is quite possible to have a floor of wood that will answer all possible requirements.

### Watch the Stock Well.

All the stock on a farm must be carefully observed. Each individual should be kept under careful watch so as to guard against disease or a reduction of flesh or product. The loss of appetite by one animal may be due to some cause that can affect the whole, and by attending to the matter in time there may be a great saving in preventing ailments among the other members of the flock or herd.

### Unsatisfied Protectionists.

When the Democratic Congress put burlaps, a kind of bagging largely used by American farmers and exporters, on the free list, the monopoly organs howled about the flood of cheap foreign burlaps which would pour into this country. A year's experience under the new tariff shows that the increased demand for burlaps, owing to the general revival of business, has advanced prices. Now the protection organs are complaining because, as they allege, the foreigner is putting up the price of burlaps, and the New York Press claims that "This is exactly the result which protectionists predicted."

Some people never can be satisfied, and the high tariffites are of that kind. Had the price of burlaps gone down the Press would have abused the Wilson tariff, and wailed over the ruin of our infant burlap industry by foreign pauper labor products. Now that prices have gone up, that paper blames the placing of burlaps on the free list. No matter what the result may be, the partisan protection organs' policy is: "Abuse the Wilson tariff."

### To Keep Harness from Ripping.

To prevent splices in lines or other parts of harness from ripping: Use carpet staples (double-pointed tacks), drive through the points of the splice, and clinch on the opposite side. I drive one each side of the loop in the billet (the part that buckles into the billet) and use them in various parts of my harness, and often make splices with them.—J. W. Campbell.

### Repairs Narrow Roads.

A narrow road can be more easily and cheaply kept in repair, since every additional square yard of surface requires so much more work, and this is an important matter in a community where the road tax is a heavy item of expense.

## UNDER A NEW TARIFF.

### OUR FOREIGN COMMERCE AND BUSINESS REVIVAL.

**Late Treasury Returns Serve to Gild the Commercial Horizon—Wool Sales Under Free Wool—Emancipation of Iowa—Republicans Changing Base.**

### Outlook Is Bright.

The treasury returns of our foreign trade for the fiscal year ending with June 30 last gild the commercial horizon with welcome light and will help to silence the few "calamity howlers" that are left. In the last twelve months the exports of domestic merchandise from the United States amounted in value to \$793,553,018, and with our exports of foreign merchandise to a total of \$807,693,000. For the same period the value of the imports was \$731,960,310. From these figures it will be seen our exports of domestic merchandise in the last twelve months exceeded our imports by \$61,592,690.

**Emancipation for Iowa.** The Democratic nominations and platform are received by the Democrats throughout Iowa not only with satisfaction, but also with a degree of enthusiasm which gives something like an assurance of victory. Iowa is not altogether lost to the cause of good government and honest politics. The Republican ring that has ruled Iowa for thirty years has combined more elements for misleading, abusing and terrorizing the people than any similar combination that ever held sway in a Western State. It has mingled fanaticism with corruption—has joined hypocrisy in its platforms with profanity in the administration to an extent that has not appeared in any other State under the rule of either party since the Union existed.

Iowa has been governed for three or four decades not by civilized law, by the courts and by the officers of the State and the municipalities. It has been ruled by fanatical public opinion in the various communities of the State. A small majority—perhaps not a majority, but a vigorous and malignant minority—has upheld a reign of proscription, of social and political ostracism, of oppression and tyranny, that has formed a cruel travesty on free government. A reign of terror, enforced by false moral reformers, by systems of espionage and social outlawry, has prevailed in the Iowa communities until it has become intolerable.

The Democratic platform and candidates promise emancipation to the people of Iowa. The election of the Democratic candidates will abolish the rule of proscription and terrorism. It will clothe the people in liberty. It will give back to every citizen his constitutional rights. It will reinstate in their manhood the voters who have been robbed of their rights and immunities through two generations of fanaticism and of social and political despotism. The Democrats promise to Iowa a deliverance. Their victory, or even a great reduction of the Republican majority, would be the dawn of a humane and general jubilee.—Chicago Chronicle.

**The Imitation Might Not Imitate.** Republican prophets, who a little while ago predicted a "walkover" in the next presidential election with a McKinley, a Reed, a Harrison or some other high tariff champion, have begun to assume a more cautious tone. Misgivings are expressed at the same time by shrewd Republican politicians in regard to the expediency of nominating any of the men who have been closely identified with the McKinley act and of thus destroying the industrial peace by reviving the tariff agitation. In this situation it would not be surprising if the Republicans should imitate the example of their whig predecessors, who discarded their high tariff champion, Henry Clay, in 1848, and nominated a fortunate soldier in Gen. Zachary Taylor.—Philadelphia Record.

**Helping Its Owners.** This is not a time for strikes for higher wages, whines the pretended friend of the workingmen, the Philadelphia Manufacturer. Of course not. The time for strikes was when McKinley was closing factories, throwing thousands of men out of work and making strikes, such as the great Carnegie strike of 1892, useless as a protest against reduced wages. This is the state of affairs which the Philadelphia high tariff organ wishes to see restored, and in the meantime it tries to prevent the American workingmen reaping the full benefit of Democratic good times, by pretending that conditions do not warrant wage advances.

But the workers themselves know better. They know that over a million men and women have had their wages increased from 10 to 15 and 20 per cent since the Wilson tariff was adopted. They know that the period of trade depression which under a high tariff filled the country with idle men, ready to take the places of striking workmen, has gone with the tariff policy which caused it. They know that it is the wonderful business revival caused by the Wilson tariff which has started up factories and mills, thus relieving the labor market of the hosts of unemployed. They know that the only time when strikes have any chance of success is when men are in demand, and that if employers are now readily yielding to the requests of their hands for more wages, it is because they know that in case of a strike they could not fill the places of the strikers. These are some of the things which the workers have learned by long experience. And they are not likely to cease striving for the highest possible wages which trade conditions will allow, merely because the avowed organ of the manufacturers warns them against believing that prosperity has returned to the country. Thanks to a Democratic Congress, we are no longer living under McKinleyism, and workingmen now have a chance of getting their share of the results of a liberal trade policy.

**Good Prospect of Victory.** The enthusiasm and harmony that prevailed in the Iowa Democratic convention augur well for the success of the admirable ticket put in nomination. The Republicans have abstained in a measure, it is true, for the blunder they made in monkeying with prohibition, but they are still so tainted with the popular distrust that in spite of their numerical strength Iowa is good fighting ground for the Democracy.—Detroit Free Press.

**Peaks in Sight at Last.** The Republicans up in Pennsylvania have become so mad that when an attempt was made to make capital for Mr. Quay by springing his military record several party newspapers declared that a man's military record cut no figure in politics. When Republican newspapers begin to talk in this fashion it is safe to infer that we have about reached the close of the war.—Washington Post.

**They Should Protect.** The calamity howlers must specify. A general war will not convince anybody when there are on all sides so many evidences of business improvement. The country is getting into better condition every day and the prospect is brighter than it has been for several years.—Atlanta Journal.

**Unsatisfied Protectionists.**

When the Democratic Congress put burlaps, a kind of bagging largely used by American farmers and exporters, on the free list, the monopoly organs howled about the flood of cheap foreign burlaps which would pour into this country. A year's experience under the new tariff shows that the increased demand for burlaps, owing to the general revival of business, has advanced prices. Now the protection organs are complaining because, as they allege, the foreigner is putting up the price of burlaps, and the New York Press claims that "This is exactly the result which protectionists predicted."

Some people never can be satisfied, and the high tariffites are of that kind. Had the price of burlaps gone down the Press would have abused the Wilson tariff, and wailed over the ruin of our infant burlap industry by foreign pauper labor products. Now that prices have gone up, that paper blames the placing of burlaps on the free list. No matter what the result may be, the partisan protection organs' policy is: "Abuse the Wilson tariff."

**Chaining Their Horses.**

Attacks on the Wilson tariff are becoming less frequent in Republican newspapers, and the proposition to make the tariff the main issue next year has not been heard recently, even from Mr. McKinley.

**Indicates a Successful Campaign.**

"It" asks the Commercial, "foreigners do not pay any part of tariff duties, why does every nation try to get the lowest possible duties on its products from all other nations?" For the same reason these same foreigners build canals, railroads and steamships. These foreigners know that all obstructions to commerce are injurious to all commercial nations, whether these obstructions are natural or artificial. Natural

obstructions are removed by railways, canals and steamships; artificial obstructions should be removed by the repeal of the tariff laws.—Louisville (Ky.) Post.

**EDWARD ALBERT, DUKE OF YORK.**



Great-grandson of Victoria, grandson of Wales, son of Prince George and probable ruler of Great Britain.

### WELDING BY ELECTRICITY.

Process by Which the Famous Liberty Bell May Be Mended.

The old cracked bell hanging idle and useless in Independence Hall may some day soon be made to lift up its long stilled voice and ring out in all its use-

View Station terrace, and with different colored lenses or slides a brilliant effect will be produced upon theraging waters of the rapids and the falls. The power to generate the current will be taken from the river itself. The only similar attempt of illuminating waterfalls is that of the famous Rhine at Schloss Lanfen, Germany. This is promised, will sink into insignificance beside illuminated Niagara.

**IMPROVED BIKE.**

An Inventor Perfects a Wheel Which Dispenses with the Chain.

An inventor in New York, who has recently perfected a device for mending punctures in bicycle tires, is also confident that the day is not far distant when the chainless bicycle will take the place of the present bicycle. He has been experimenting in this direction for several years, and has perfected a bicycle which dispenses with the sprocket wheels, chain, 40 per cent of the frame and the ordinary pedals and pedal cranks.

By its peculiar construction, say if

A BROKEN BELL.

full vigor. Early in the present century the efforts of inventors, bell moulder and metal workers were directed to the accomplishment of this end, but without avail. Latterly the same efforts were made to mend other bells that had become dumb, but all without any fruitful results, and it was generally agreed that a cracked bell was worth only so much a pound of old metal.

A system of electric welding has been devised by a Russian, Slavonoff, by which old bells cracked to the very crown may be made as new. The new process is known as the "hydro-electromagnetic" and it appears to offer interesting possibilities, though not yet fully developed. Its principle depends on the employment of a bath and in the development of hydrogen gas at the negative pole. The gas surrounds the part of the object to be treated, forming a high resistance to the current, which is transformed at this point into calorific energy and communicated to the metal

100 pounds is placed upon the saddle, it will take 40 pounds to raise the front wheel; hence it is perfectly safe. The driving levers have nearly double the length of the present pedal cranks now used on the chain bicycle, 28 inches, while by the present chain bicycle the rider's foot travels about 42 inches. The driving levers being nearly double the length of the present pedal cranks now used on the chain bicycle, it is claimed an increase of power is obtained—hence an increase of speed.

The inventor will construct the frame of his chainless bicycle of bamboo, as he has recently discovered a process to prevent bamboo from splitting, which has been a great drawback in the use of the material for bicycle frames.

**Inspecting Dried Apples.**