

FARM AND GARDEN.

MATTERS OF INTEREST TO AGRICULTURISTS.

Some Up-to-Date Hints About Cultivation of the Soil and Yields Thereof—Horticulture, Viticulture and Floriculture.

HAVING to depend entirely in agriculture on the success of plants in the field to furnish human food and animal fodder, the farmer should understand how plants grow. The seed, in a favorable condition of the soil, puts its root downward, to bear fruit upward later on. The best condition demands humus to make plant flesh, mineral matter, to furnish fibre, glazing and tubing to retain solids in solution, and carry in water all particles that are requisite and necessary to their own places in the plant structures, drawn by the rays of the sun. Hence the first law given to man by Moses, in Genesis: "Let the earth bring forth grass, herb-bearing seed (weeds), trees bearing fruit, whose seed is in itself." It was so, and God saw it was good. "Nature absorbs a vacuum." Animals hate bare ground. Many farmers believe that plants breathe. They cannot without lungs. To respire, to inhale and exhale air, hence to live. The action of sunshine on the leaves of plants is to draw moisture out of them, through the plant's structure, directly from the soil.

During the past summer, hundreds of trees on our farms, in shallow soils, dried up, and died for lack of moisture in the earth, within the reach of their roots.

In the dry countries of Iowa the meadows and pastures now are very bare ground. Hence half the number of cattle for the next summer pasture will be the wisest policy for profitable results. "Grass enough for two cows, but one cow on." In evergreen and deciduous trees, the leaves that lack sunshine soon die. A picket fence will destroy plant leaves and branches in its shadow. During the past summer in sunshine with moisture the plant growths were prolific. On the lawn, all trees overshadowed in part, all day long, the shaded part died, while those parts shone on at some time in the day lived and made a healthy growth. The sun can draw moisture out of plants, but never drive it into them.

Richard Baker.

Pastures.

I have several pastures of five acres to 200 acres. I keep no certain number in each pasture, but change according to season and the amount of stock on hand. Usually try to keep each kind of stock by itself, and change about so as to give a variety of feed. Sometimes have to keep horses, sheep and cattle in same pastures, but think horses and sheep do best, and cattle with hogs if necessary to mix them. Cattle do not do well with sheep, nor horses with hogs. Part of my pastures are wild grass, part are fed into June and blue-grass, and part are old timothy meadows run into June grass. Tame pastures are black loam and sandy with clay subsoil. Wild pastures are mucky loam. Often feed cows fodder, straw and damaged hay on pastures near barns. Sometimes put barnyard manure on pasture if no other place is available. Like both trees and sheds in pasture and barns for winter. Have no ponds, but running stream in open ditches and windmills with tanks. Am compelled to have both tile and open ditches. Prefer tile. Would sow several kinds of those adapted to soil and climate. Have some rail, some five board, some barb-wire and some woven wire. Prefer woven wire five feet high. O. Dinwiddie, Lake Co., Ind.

Illinois Horticultural Convention.

(From Farmers' Review.)
The fourteenth annual convention of the Illinois Horticultural society was held at Kankakee recently.

In reviewing the fruit lists for Illinois a discussion arose on the protection of fruit trees from rodents. Various methods were advocated, among them being fish oil and axle grease. There was, however, danger of using these too much, especially on young trees. Instances were given where such treatment had resulted in the death of the trees. Trees ten years old would not be harmed by the treatment. An apple grower said he knew of an orchard of 2,000 young trees that had been killed by using too much oil. Mr. Williams had been using for twelve years a paint made of soap, tar, sulphur and lime. He put it on the trees with a common paint brush. It makes a thorough glaze and will destroy every insect. He believes also that this paint has the tendency to protect from sun-scald. The little lime in it, when the dry weather comes, turns the mass to a grayish color that throws off the rays of the sun and thus keeps the bark of the tree from cracking.

One man that had tried tarred paper thought there was great danger from using this, as it was not taken off early enough in the spring, in which case the tar from the paper works into the tree. He had tried paper made out of felt, and untarred, and found this to work very well, if it were but taken off early enough in the season. He now uses strong muslin, putting it on every fall and taking it off every spring. He had tried this now for three years.

Mr. Burnhardt expressed himself as certain that the rabbits would let the trees alone if they only had enough of other things to eat. He had been setting out trees for twenty-five years and had never had any trouble from rabbits.

But there had always been about his place some brushwood or trees for them to work on. The scattering of some kind of grain on the ground would serve to keep them away from the trees.

Mr. Augustine suggested that there must be different varieties of wild rabbits, for the kind that lived in his vicinity began to gnaw the trees as early as July.

Mr. Gilbert protects his trees by using only common wrapping paper, such as can be obtained in any grocery or dry goods store. He tears these papers into strips eight inches wide. These he wraps around the tree on the bias, beginning near the ground, and stopping twenty inches above it, where he ties the paper.

A discussion arose on the value of the yellow transparent for commercial orchards. Some believed it a mistake to plant largely of this variety on account of its poor keeping qualities. However, when in good shape, it sells readily, and men from Southern Illinois expressed great faith in its commercial value.

Much time was devoted to the discussion of the efficiency of spraying, and successes and failures were reported. The prevailing opinion was that the failures were due to ignorance in doing the work.

Question.—How many have experimented with spraying mixtures?

Twenty-seven replied affirmatively.

Question.—How many recommend spraying?

Thirty-five votes were cast for it, and none against it.

The growing of small fruits was discussed, and the growing of strawberries in hills came up. While hill culture gives large, fine berries, yet growers on a large scale do not follow it, as it does not pay for the extra trouble.

The question of fertilizers was discussed at length. The most important point developed was that the extensive use of barnyard manure made it possible for the soil to use a greater mass of chemical fertilizers than if it were not used at all. Thus in the neighborhood of large cities the market gardeners are enabled to use immense quantities of commercial fertilizers because they also use immense quantities of barnyard manure.

Mr. Morrill, of Michigan, spoke on the marketing of fruit. The first requisite is to have something desirable to market. He could not tell a man how to market undesirable fruit. The great necessity with farmers is to learn how to co-operate in the sale of goods. The co-operative organizations have largely failed for the reason that there seemed a jealousy against any man being paid to look after the work. He believed the time to be approaching when farmers would use more business-like methods.

The superintendent of the insane asylum at Kankakee spoke on the great success of irrigation at that place. The water for the irrigation works is pumped by steam engines that can supply from 100,000 to 200,000 gallons per day. The cost for this pumping is only three-tenths of a cent per thousand gallons. During the last season they had raised vegetables worth over \$6,000. By a vote of the society the life membership fee was reduced from \$20 to \$5.

The election of officers resulted in the following choice: President, Mr. Goodrich; vice-president, Lem Small; secretary, H. M. Dunlap; treasurer, Arthur Bryant.

The next annual meeting will be held at Springfield.

William Gould spoke on the cultivation of grapes. He plants 8x8 or 7x9, which gives about 700 vines to the acre.

Sulphur for Sheep.—The American Sheep Breeder says: While sulphur is indispensable for sheep, as furnishing one of the important elements of the fleece, it must be given in such a way as to be available for this purpose. It must be in the food. It cannot be given in the crude form, in which it is not a food, but an active medicine, producing a laxative action on the bowels and an excessive excretion through the skin. It is this which makes it useful as an antidote to all kinds of parasites, the sulphur thus passing through the skin being extremely offensive to all insects. But its action on the skin is to open the pores and thus make the animal more subject to changes of the weather, and especially to injury by rains. It is thus not desirable to give sulphur as food or nutrient except in the food, such as white mustard or any other plant of the turnip and cabbage tribe.

Transplanting Large Trees.—Gardening gives this method, and we can certify to its being a good one: We prefer doing this in the spring, and would prepare for it now. If you want to move a moderately large tree, say four, five or even six inches in diameter of trunk, next spring, head in its top now all you think ought to be done at planting time, then mark a ring on the ground around and four, five, six or more feet away from the stem, the distance away depending on the size of the tree. Now, along, but outside of this ring mark, dig a narrow trench say three feet deep, the object being to cut away all roots projecting beyond it, and fill up the trench at once with the same soil that came out of it. By spring the tree will have fairly recovered from the shock caused by cutting in root and top, and may be dug up and transplanted with fair chances of success.

Armour Buying Corn.—P. D. Armour, the millionaire packer, is making arrangements to crib an enormous amount of corn in Iowa this year. He is building cribs all along the Chicago, Milwaukee & St. Paul road and has arranged with the Des Moines, Northern and Western railway company to construct along their line of road cribs which will hold 750,000 bushels of corn. The road already has cribs with a capacity of 1,000,000 bushels.—Ex.

Babies on Bicycles.

There is reason in the crusade which has been begun at San Francisco against the carrying of babies on bicycles. It may be the children like it, just as their fathers do, but the real point is that the practice is too dangerous. Accidents are always liable to occur, and while the rider takes his own chance and has every opportunity to save himself, the baby has to take much greater risks. The mere fact that it is there tends to rob the rider of nerve at critical times. Those who are managing the campaign in California rely partly on the law of that state which makes it a misdemeanor to place a child in any position dangerous to life or limb.—Hartford Times.

Frost, Frolic and Business.

The wind over frozen ponds and lakes, over snow-fields of plains and open country, is heavily charged with frost and fine particles of frozen matter. It is the most penetrating way for chill to set in. Sudden warmth, sudden chill, and severe colds. Girls and boys skating, driving for pleasure or business, and men at work should know the difference in temperature. Yet the youngsters skate away and with mouths open laughing take in a dose of sorethroat. Drivers and workmen throw aside wraps and all know the next day from soreness and stiffness what sudden chill means. Now the best thing to do when housed is to rub well at once with St. Jacobs Oil. If you do, you will not have sorethroat; or if you are stiff and sore, it will cure by warming the surface to throw out the chill.

Swallowed the Pollywogs.

Uncle Jack returns from a long walk and, being somewhat thirsty drinks from a tumbler he finds on the table. Enter his little niece, Alice, who instantly sets up a cry of despair. Uncle Jack—"What's the matter, Alice?" Alice (weeping)—"You've drunk up my quarium and you've swallowed my free pollywogs."—Rehoboth Sunday Herald.

Deafness Can Not Be Cured.

By local applications, as they cannot reach the diseased portion of the ear. There is only one way to cure deafness, and that is by constitutional remedies. Deafness is caused by an inflamed condition of the mucous lining of the Eustachian Tube. When the tube is inflamed you have a rumbling sound or imperfect hearing, and when it is entirely closed Deafness is the result, and unless the inflammation can be taken out and this tube restored to its normal condition, hearing will be destroyed forever; nine cases out of ten are caused by Catarrh, which is nothing but an inflamed condition of the mucous surfaces.

We will give One Hundred Dollars for any case of Deafness (caused by Catarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars, free. F. J. CHENEY & CO., Toledo, O. Sold by druggists; 75c. Hall's Family Pills, 25c.

The Yankee Would Help.

A little Virginia boy, who was much interested in listening to a discussion of a war question between this country and England, asked: "Papa, if we go to war with England will the Yankees help us fight our country?" And he added, "If they do we can whip the English to pieces."

IOWA PATENT OFFICE REPORT.

DES MOINES, January 13.—Patents have been allowed, but not yet issued, as follows: To the Prouty-Fowler Soap Co., of Des Moines, for three trade-marks, to-wit: The word symbols, Bo-Peep, Peek-a-Boo, and Jack-Tar. To J. H. Kinsey, of Milo, for a wire stretcher specially adapted to be clamped fast to a post for stretching fence wires and splicing broken wires. To Deborah Owen, of Van Wert, for a novelty for women, described in one of the claims as follows: A dress protector consisting of an overskirt gathered at its sides at the lower portion thereof, and provided with fastening devices to secure the said side portions about the ankles of the wearer and also provided with fastening devices along the lower edge, between the first named fastening devices, to secure the same between the legs of the wearer. Printed copies of the drawings and specifications of any one patent sent to any address for 25 cents. Valuable information about securing, valuing and selling patents sent free. THOMAS G. AND J. RALPH ORWIG, Solicitors of Patents.

Some of the Japanese soldiers wear paper clothing.

I believe my prompt use of Piso's Cure prevented quick consumption.—Mrs. Lucy Wallace, Marquette, Kans., Dec. 12, '95.

Selfishness is self-robbery, no matter whether it dwells in a hut or in a palace.

"Ransom's Magic Corn Salve." Warranted to cure or money refunded. Ask your druggist for it. Price 15 cents.

Matrimonia triumphs of gentlemen in trade cause more to go into it.

FITS.—All Fits stopped free by Dr. Kline's Great Nerve Restorer. No Fits after the first day's use. Nervousness, Trembling and Shaking, Headache, Stomach Troubles, and all the troubles of the system, cured by Dr. Kline's Great Nerve Restorer. Send for free circulars, full particulars.

BETTER WALK A MILE than fall to get a 5-cent package of Cut and Slash smoking tobacco if you want to enjoy a real good smoke. Cut and Slash cheroots are as good as many 5-cent cigars, and you get three for 5 cents. Sure to please.

SILVER KING BARLEY, 110 BU. PER ACRE.

The barley wonder. Yields right along on poor, good or indifferent soils 80 to 100 bus. per acre. That pays at 20c. a bushel!

Salzer's mammoth catalogue is full of good things. Silver Mine Oats yielded 209 bushels in 1895. It will do better in 1896. Hurrah for Teosinte, Sand Vetch, Spurry and Giant Clover and lots of grasses and clovers they offer. 35 packages earliest vegetables \$1.00.

If you will cut this out and send it with 10c. postage to the John A. Salzer Seed Co., La Crosse, Wis., you will get free 10c. grain and grass samples, including barley, etc., and their mammoth catalogue. Catalogue alone 5c. for mailing. W.D.

Loading Ships by Electricity.

One of the most wonderful labor-saving inventions of the day is the new electric stevedore or movable conveyor for loading a ship with flour or grain from an ordinary wharf. Its length is forty feet, two wheels in the center allowing it to be moved at will. The actuating power is electricity. The revolving belt on which the sacks are placed is of rubber, and passes over twelve rollers. The belt revolves at such a speed as to carry all the weight in flour or grain that can be placed upon it. This apparatus recently loaded a steamer with three thousand tons of flour at the rate of seventy-five tons per hour.

The Gift of a Good Stomach.

Is one of the most beneficent donations vouchsafed to us by nature. How often it is grossly abused! Whether the stomach is naturally weak, or has been rendered so by imprudence in eating or drinking, Hostetter's Stomach Bitters is the best agent for its restoration to vigor and activity. Both digestion and appetite are renewed by this tonic, which also overcomes constipation, biliousness, neuralgia, kidney and rheumatic ailments and nervousness.

We can only do our best when we are sure we are right.

"BROWN'S BRONCHIAL TROCHES" are unequalled for clearing the voice. Public speakers and singers the world over use them.

Love can be misunderstood, but never overestimated.

Parker's Ginger Tonic is popular for its good work. Suffering, tired, sleepless, nervous women find nothing so soothing and reviving.

Modern woman sometimes stoop exceedingly low to conquer.

What a sense of relief it is to know that you have no more colic, indigestion, nervousness, and very comforting in the stomach.

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Hegeman's Camphor Ice with Glycerine. The original and only genuine. Cures Chapped Hands and Face, Cold Sores, etc. U. G. Clark Co., N. Haven, Ct.

Society men add to their popularity by being deferential to old ladies.

COLORADO GOLD MINES.

If you are interested in gold mining or wish to keep posted regarding the wonderful strides being made in Colorado, it will pay you to send fifty cents for a year's subscription to The Gold Miner, an illustrated monthly paper published at Denver.

Some noblemen and their American wives' money are soon alienated.

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Both the method and results when Syrup of Figs is taken; it is pleasant and refreshing to the taste, and acts gently yet promptly on the Kidneys, Liver and Bowels, cleanses the system effectually, dispels colds, headaches and fevers and cures habitual constipation. Syrup of Figs is the only remedy of its kind ever produced, pleasing to the taste and acceptable to the stomach, prompt in its action and truly beneficial in its effects, prepared only from the most healthy and agreeable substances, its many excellent qualities commend it to all and have made it the most popular remedy known.

Syrup of Figs is for sale in 50 cent bottles by all leading druggists. Any reliable druggist who may not have it on hand will procure it promptly for any one who wishes to try it. Do not accept any substitute.

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We pay this on Oats, Barley, and Corn. 250 bushels of Silver Mine (Nameless Beauty) Oats grown on one acre won the prize in 1895. You can beat that! It is the greatest Oat of the century. No more hard times if you now a plenty of Salzer's Barley, Oats, Potatoes, Grass, and Clovers! Have you tried Teosinte, Sacaline, Giant Spurry and Giant Clover? Salzer's German Clover? Catalogue tells all about these Fodder Plants.

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