

FOR FARM AND GARDEN.

A Pointer for Bean Raisers.

I do not know just how true it is, but I have read that the common black butter bean will bear continuously through the season if the pods are all picked as soon as they are large enough to use. If any are allowed to ripen, the plant has fulfilled its mission and will die.—New York Weekly Witness.

Shallow or Deep Cultivation for Corn.

We have been from boyhood a believer in shallow cultivation of corn, even when the work was done with a plow by most farmers. The first cultivator we remember seeing was like a small spike-toothed harrow with plow handles attached. It mellowed the ground to make easy hoeing, and killed many weeds when they were small, which was an inducement to use it frequently. But we never knew how much gain there was by the shallow cultivation. At the Nebraska experiment station they tested four cultivators on as many different lots one of which worked the ground six inches deep, and the others went three inches deep. Where the soil was worked six inches deep the yield was 59 bushels per acre. On the others one gave 68 bushels per acre and the other two 69 bushels each, a loss of about one-seventh by deep cultivation.—American Cultivator.

Caring for Sheep.

There are no secrets about the best way to care for sheep. The man who owns a farm and does not keep sheep making an excuse for not doing so because they are hard to take care of, is either ignorant of sheep husbandry, or simply lazy. Sheep are about the most comfortable animals to take care of that we have about us. They are quiet and gentle and are not very particular about their feed if they are kept in good health. They need to be fed regularly and given sound and wholesome feed, but the feed need not be of the costliest kind. Good, bright hay and a small amount of corn will keep them in good shape during the winter and grass is all they want in summer, although if there are briars, elders or any other scrubby bushes in their pasture they will eat them up by way of relish.

They should be protected from the storms of winter, and salted regularly the year through, and for the amount of labor involved they will make better returns than any other kind of stock.

The Open Pasture Ditch.

Many a farmer that would not think of having anything but a covered drain in his meadow or grain field still keeps the old-fashioned open ditch in his pasture. Yet the pasture drain ditch is always a nuisance and frequently a source of expense. The soil of the banks is constantly being washed by the rains into the bottom, and in the case of heavy freshets this washing sometimes amounts to a landslide. The whole line of the ditch is disfigured and the owner of the pasture is put to a great deal of expense in keeping the channel sufficiently open to allow the water to run at all.

Weed seeds find it a place where they can lodge and grow without disturbance by the mower, and from which they can in turn send out new myriads of seeds to reseed the adjacent fields. Too often in summer time stagnant pools collect in these ditches and the cattle seek them for drinking purposes. As they readily become foul with the droppings of the farm animals and with decaying vegetation they become a menace both to the purity of the milk of the cows and to the health of all the farm stock. Being open, they prevent the pasture being included in the rotation of crops, or, at least, make it extremely inconvenient, for the reason that the plow could not run close to it and it would become an obstacle to the free passage of the teams at all times.

Added to these things is the fact that it takes out of the pasture a considerable area, and we can readily see that to put a covered drain in its place is a wise procedure in almost every case.—Farm, Field and Fireside.

The Good Points of Small Cheese.

Small cheese are best for home consumption. Cheese are to a certain extent porous, and the unbroken rind forms a shell of protection. When this rind is broken by cutting, air enters, and the shield that the product formerly enjoyed against moderate changes of temperature no longer serves it. Mold generates and travels along the seams and cavities, if the air be slightly humid; or natural moisture is dried out if conditions happen to be the opposite. In either event the quality of the cheese deteriorates, especially if several weeks elapse from the time of cutting before it is consumed.

For average sized families, 10-pound cheese are a much better buy or make than 30 or 40-pounds. These small-sized cheeses, while manufacture on a limited scale, are not produced in sufficient quantities to supply the demand. I think that in no way can an increase of cheese consumption be more effectively induced than by the more general manufacture of such light-weight full cream stock.

Dairymen who produce cheese at home for their own use should not attempt to have them weigh less than five pounds or more than ten apiece. This of course applies to the cheddar variety, and does not mean to include brick or other styles of cheese of foreign introduction. By so doing they will always have a fresh and healthy article to place upon their tables, for a small cheese being consumed within

a few days after cutting has no chance to deteriorate, if given ordinary care. I have been familiar with cheese and cheese making since childhood, and I speak from firm conviction when I say that no healthier or more nutritious food exists than this when properly made and carefully served.—George E. Newell, in New England Homestead.

The Fertility That Crops Use.

From a table published by Professor Ormsby upon the manurial value of farm products, which shows the amount and value of fertilizing constituents carried away from the soil by different products, it can be seen that the farmer who sells a ton of hay sells fertilizing ingredients which, if purchased in the form of commercial fertilizers would cost him about \$5.10; that if he sells 2000 pounds of wheat he sells an amount of nitrogen, phosphoric acid and potash which would cost him \$7.91 to replace in his soil in the form of commercial fertilizers.

Or, looking at it from a somewhat different standpoint, a farmer who sells, for example, \$10 worth of wheat sells with it about \$2.63 worth of the fertility of his soil. In other words, when he receives his \$10 this amount does not represent the net receipts of the transaction, for he has parted with \$2.63 worth of his capital, that is, of the stored up fertility of his soil, and if he does not take this into the account he makes the same mistake a merchant would should he estimate his profits by the amount of cash which he received and neglect to take account of stock.

The department of agriculture suggests that the farmer, instead of selling off his crops, feed them to live stock on the farm as far as possible, "if the business of stock feeding is carried to the point where feed is purchased in addition to that grown on the farm, a considerable addition may in this way be made to the fertility of the farm at an almost nominal cost, since it is assumed that feed will not be bought unless its feeding value will at least pay its cost."

This commendable system of indirect purchase of fertilizers in feeding stuffs is practiced largely in England and other European countries, and accounts for no small share of the profits of stock-raising in those countries, though of course these advantages will not be secured unless the manure produced is carefully saved and used.

Marketing the Onion Crop.

The method of selling onions at harvest time and delivering to the railroad station direct from the field has many advantages over that of putting them in store for future sales. Probably most important is that, when taken from the field, there is no loss to the grower from shrinkage. More or less dirt will always adhere to the bulbs, which, with the outside skin, comes off by future handling, and the onions also lose moisture. Yet the practice of storing the crop for winter sales is becoming somewhat prevalent. Especially is there a disposition to hold the crop following an advancement of prices during the preceding winter.

The disadvantages which follow holding the crop are the deprivation of the use of the money which a ready sale would bring and the risks. These are several. Perhaps the first to be cited would be the loss from shrinkage in weight. Much depends upon the manner in which they are kept, the place of storage, and whether dry, well ripened and cured when put in store. If not, they are liable to sprout. Sprouting causes the bulb to grow soft and unmerchantable. If the crop can be stored in a building adapted to the purpose and kept continually almost at freezing point, there will be comparatively little shrinkage. I would prefer them to become chilled, or frozen some on the outer edge of the receptacle in which kept than stored in a warm cellar. But they must not be allowed to freeze and thaw repeatedly, neither should they be handled when frozen, but allowed to thaw out gradually and put upon the market at once. When frozen they should be kept in that condition till wanted for disposal. Some persons keep a part of their crop by storing in their house cellar, where they become offensive and disagreeable to those living in rooms above.

Onions intended to be kept for late sales should be harvested with the tops uncut. They are much less liable to grow, as the tops, being usually free from moisture, will absorb any moisture that the bulbs may have. Being dry, they will sustain a greater degree of cold, and will be kept in a better condition. The tops will have to be cut when marketed, unless a sale can be made with tops on, which is sometimes done when onions are commanding a good price. There is yet another risk in holding the crop which is common to all crops, the danger of depreciation instead of appreciation in market value. Anyone who continues to hold any crop after it is ready for market, in a sense becomes a speculator, and should take into consideration the danger of a falling market. The writer has known instances where crops of onions were kept through the winter and then found no sale, being finally thrown away, a total loss. Unless a farmer has abundant capital and is able to bear the loss of a part or the whole of his crop without embarrassment, the surest way is to sell when he can get a fair price.—John M. Smith in Orange Judd Farmer.

Making Up Lost Time.

"That young poet used to be singing constantly, but now we never have a note from him."
"Well, somebody left him a legacy of ten dollars, and he's quit singing and gone to eating."—Atlanta Constitution.

SCIENCE AND INDUSTRY.

Florida boasts of a plant that greatly exceeds any other known annual in size. It is the *Aconita australis*, belonging to the *Amarantaceae*, and has been described by the Kew Bulletin as having branches that certainly reach about 22 feet in length, and probably attain 25 feet.

The island of Malta is the only known spot where the remains of dwarf elephants are found. There are several places on the island where the bones of these miniature pachyderms have been unearthed, and hundreds of skeletons have been secured in whole or in part. One of these, whose teeth and bones showed it was a full-grown specimen, was less than two and a half feet in height, and could not have weighed over six hundred pounds when in the flesh.

A notable example of electrical development in foreign countries is the application on the Russian river Volga of suction dredges. The Volga dredge is electrically self-propelling and controllable. It is in two parts, the electric installation of each half consisting of a powerful generator directly to a fore and aft triple expansion engine. Each half measures 216 feet by 31 1-2 feet wide and 9 feet deep. At light draught the hull draws four feet; the working draught is 8 inches greater. This double dredge can be operated as a whole, making a bottom cut sixty-two feet wide, or each half can be operated separately.

A machine devised to crush pine wood into pulp for the manufacture of paper has just been shipped from Nashville, Tenn., to a Florida paper concern. The Nashville American says this marks the introduction of the paper business into Florida. The machine is the work of a Southern inventor named Thomas, and for the first time enables paper to be profitably made from pine by eliminating the resin. The process is kept secret. The material to be used in Florida is pine slabs, the refuse of the mills, and can be had for almost nothing, so that what is now practically a waste product will be utilized, immense crematories having to be constructed to destroy it. A sample of the paper in the unfinished state, manufactured from the material, on being torn apart, disclosed a fibre that had the appearance of cotton flannel.

Geologists are of the opinion that the vast territory now known as Wyoming once had numerous fresh water lakes and a climate approaching the semi-tropical, and that the animals whose bones are from time to time coming to light inhabited these lakes and the adjoining swamps in myriads. They sank into the mud in dying and their bones were covered with other deposits and became petrified. The large beds are found at points supposed to have been the mouths of great rivers, the animals after death having floated down these rivers to places where they were deposited in these estuaries, thus accounting for the vast deposits which characterize certain localities and which have proved such a study to scientific investigators.

HOW RAISINS ARE SEEDED.

"Genuine" Machines That Turn Out Ten or Twelve Tons Daily.

Unlike the Eastern imitation, the California seeded raisin is subjected to a dry temperature of 140 degrees Fahrenheit from three to five hours, immediately after which the fruit is submitted to a chilling process, and while in this reduced condition of temperature is passed through cleaning or "brushing" machines, which remove every particle of dust and the cap stems, thus making it a pure and wholesome article. It is then taken automatically, by elevators, to a room where, spread upon wire trays, it is exposed to a temperature of 130 degrees Fahrenheit, which brings the fruit back to its normal condition, and in this "processing" the berry is converted into pectin, that delicious jelly which gives to fruits their best flavor.

The raisins having been prepared, through this alternate heating and chilling, to keep indefinitely and resist climatic influence, are passed through seeding machines, each of which has a capacity of from ten to twelve tons daily. The raisins are pressed between rubber or similar surfaced rollers, which at first flatten the berry and press the seeds to the surface, when an impaling roller catches the seeds between its needles or teeth, affixed to its periphery, deftly removing them from the fruit, while the latter passes on, minus its seeds, but preserving every particle of its flesh. The seeds are removed from the roller by a "flicking," or whisking, device, and are sent along to the seed receptacle, finally ending their journey in the engine room, where they are burned as fuel.

Four hundred and fifty carloads of ten tons each, or 9,000,000 pounds, of seeded raisins were shipped from the Fresno district last year, and a very much larger tonnage will be turned out this year.

Some estimate can be formed of the possibilities of the Fresno seeded raisin plants when it is stated that their aggregate capacity for this season will approximate 1700 to 2000 carloads, while it is probable that 1400 cars will be the output. Each seeding plant has from five to twelve machines of ten tons daily capacity per machine. Some of the packing-houses cover a ground space 150 by 225 feet and are three stories high.—California Vineyardist.

Since 1880 the average time it takes a letter to get from London to Bombay has been reduced from three weeks to two.

Like Finding Money.

The use of the Endless Chain Starot Book in the purchase of "Red Cross" and "Hubinger's Best" starch, makes it just like finding money. Why, for only 5c you are enabled to get one large 10c package of "Red Cross" starch, one large 10c package of "Hubinger's Best" starch, with the premiums, two Shakespeare panels, printed in twelve beautiful colors, or one Twentieth Century Girl Calendar, embossed in gold. Ask your grocer for this starch and obtain the beautiful Christmas presents free.

He Saved the Baby.

An old resident of a Nova Scotia town is the proud owner of a Newfoundland dog for which he has been offered large sums. The dog's intelligence has always been rated high, but two years ago he added to his reputation by an act which seemed to indicate a power of rapid reasoning equal to that possessed by many human beings.

His master lives on the side of a hill, the street sloping rather abruptly down to the water's edge. One day a little girl, left in charge of her baby sister sleeping in its small carriage, turned away to talk with a schoolmate, and forgot the baby for a moment.

In that moment a sudden gust of wind took the little carriage, and bore it rapidly along down the hill toward the water. The two children ran shrieking after it, but the wind was too fleet for them.

The big Newfoundland, lying at the foot of his master's walk, as usual, raised his head when he heard the cries, and saw the carriage skimming by him. Unlike the children, he made no attempt to overtake it by a direct chase, but dashing across three or four lawns, he came out at a curve of the road ahead of the little vehicle, and planting himself firmly in its track stopped it, and held it safely until some of the neighbors, who had been roused by the cries, hurried to the spot.

Then he walked up the hill again, apparently unmoved by the praise and petting which were surely his due, and resumed his nap with the air of a dog that had done his duty as best he knew how, and was content. —Youth's Companion.

An attempt on a large scale is soon to be made to stock the abandoned farms of Maine with cattle from the west.

Don't Tobacco Spit and Smoke Your Life Away.

To quit tobacco easily and forever, be magnetic, full of life, nerve and vigor, take No-To-Bac, the wonder-worker, that makes weak men strong. All druggists, 50c or \$1. Cure guaranteed. Booklet and sample free. Address: Sterling Remedy Co., Chicago or New York.

Rabbits cannot gnaw through wire cloth placed about fruit trees.

VITALITY LOW, debilitated or exhausted cured by Dr. Klinge's Invigorating Tonic. Free \$1 trial bottle for 2 weeks' treatment. Dr. Klinge, Ltd., 381 Arch St., Philadelphia. Founded 1871.

In Manitoba there are 2,500,000 acres under crops, of which 1,600,000 is wheat.

To Cure Constipation Forever.

Take Cascarets Candy Cathartic, 10c or 25c. If C. C. C. fail to cure, druggists refund money.

Music boxes for bicycles are manufactured by a firm in Hamburg, Germany.

After physicians had given me up, I was saved by Pils' Cure.—RALPH ERIE, Williamsport, Pa., Nov. 25, 1903.

How Are Your Kidneys?

Dr. Hodbs' Spargus Pills cure all kidney ills. Sample free. Address: Sterling Remedy Co., Chicago or N. Y.

There is a town without a name on Lake Huron.

The Whole Truth!

There's nothing so bad for a cough as coughing.

There's nothing so good for a cough as Ayer's Cherry Pectoral.

The 25 cent size is just right for an ordinary, everyday cold. The 50 cent size is better for the cough of bronchitis, croup, grip, and hoarseness. The dollar size is the best for chronic coughs, as in consumption, chronic bronchitis, asthma, etc.

(Afflicted with sore eyes, use Thompson's Eye Water)



HOW STORIES GROW.

They say the lamb which Mary had, Whose fleece was white as snow, Was really just a clever "Ad." For Ivory Soap, you know.

IVORY SOAP IS 99% PER CENT. PURE.

Save the Nickels.

From saving, comes having. Ask your grocer how you can save 15c by investing 5c. He can tell you just how you can get one large 10c package of "Red Cross" starch, one large 10c package of "Hubinger's Best" starch, with the premiums, two beautiful Shakespeare panels, printed in twelve beautiful colors, or one Twentieth Century Girl Calendar, all for 5c. Ask your grocer for this starch and obtain these beautiful Christmas presents free.

The town of Moorehead, Kan., has a co-operative hotel, laundry, hall, creamery and cannery factory and a co-operative dining-hall, with several 30-operative farms near by.

Beauty Is Blood Deep.

Clean blood means a clean skin. No beauty without it. Cascarets, Candy Cathartic clean your blood and keep it clean, by stirring up the lazy liver and driving all impurities from the body. Begin to-day to banish pimples, boils, blotches, blackheads, and that sickly bilious complexion by taking Cascarets,—beauty for ten cents. All druggists, satisfaction guaranteed, 10c, 25c, 50c.

California produces about one-third of the almonds consumed in the United States.

Deafness Cannot 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 this 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 lost 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 to any case of Deafness (caused by catarrh) that cannot be cured by Hall's Catarrh Cure. Send for circulars free.

F. J. CRENEY & Co., Toledo, O.

Hall's Family Pills are the best.

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Candy Cathartic cure constipation for ever. 10c, 25c. If C. C. C. fail, druggists refund money.

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| 4 Child's Set, Knife, Fork and Spoon..... | 26 Tool Set, not playthings, but real tools..... |
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| 6 French Briar Wood Pipe..... | 28 Remington Rifle No. 6, .25 or .32 cal., accurate and durable..... |
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