



HOW TO CULTIVATE TOBACCO.

Messrs. J. Stout and A. O. Peden, of Alamo, who grew a considerable quantity of tobacco last season with success, have contributed the following article to the *Contra Costa Gazette*:

SOWING THE SEED.

Select a piece of light, loamy soil, burn it well, rake off the ashes, and then dig up three inches deep. It should be pulverized fine, and all trash raked off. When ready to sow, mix the seed with dry ashes—mix it well—one heaped table spoon full of seed to a milkpan of ashes. Sow that quantity on a bed one rod square, and tramp the bed after sowing. That is all that is required to be done. Sow about the first of January. If the plants do not grow fast, and the ground becomes dry, water should be sprinkled on the plant bed every evening.

SETTING OUT THE PLANTS.

This should commence about the last week in April, and be finished about the middle of May, if possible, but it will make tobacco if set out as late as the middle of June. We did not finish until the 20th of June, but the tobacco was very light. We find that the earliest plants make the best articles of tobacco. The ground should be well cultivated before setting out, as there is more likelihood of the plants living. It should be laid off very shallow, as deep furrows will cause the ground to dry out. We laid off with a rail with pins in it three feet apart, and that distance is enough. We did not water or cover our plants after they were set out, as we found by experiment that water was injurious.

PRIMING.

Priming, or taking off the bottom leaves, is the first thing that has to be done to tobacco. We took off six or eight leaves, being governed by the kind of tobacco. We have six varieties: Virginia Gold Leaf, Cuba Brittle Stem, Havana Broad Leaf, Havana Short Leaf, Maryland Straight, and Ladies Finger, all cigar tobacco, except the Virginia and Maryland.

TOPPING.

We find for chewing tobacco, that ten leaves are enough to leave on a plant, and twelve or fourteen on cigar tobacco, at the first topping, and two less every time it is gone over, say once a week. In both topping and suckering, the bud should be taken out as soon as possible, so as to throw all the sap into the leaves that are left on the stalk. Great care should be taken not to bruise or tear the leaves, as it injures them very much. There is a way to top tobacco without counting every leaf, which is a great saving of time, and this is of some importance when help has to be hired. The way is, first ascertain where the bottom leaf is, and the ninth leaf will be found exactly perpendicular above it, and the next of course is the tenth. The suckers should be kept as close, as, if allowed to grow to a great length, they will injure the plants.

WORMS.

The cut worm bothered us after the plant got started in the field. They will destroy one or more plants if not killed. The next is what is called the bud worm, which makes its appearance in the top of the plant. When first seen it is very small. The tobacco worm made its appearance when the crop was about half grown, but did much damage. The grasshopper is very fond of tobacco, and when numerous, they would damage it, as they are very hard to kill.

HARVESTING AND CURING.

When the tobacco is thoroughly ripe, procure round-pointed shoo-knives, split the stalk from the top to within four inches of the bottom leaf, where it should be cut off. Let it lie in the field until wilted, so that the leaves will not break off the stalk; then haul it to the barn on a sled, as it will bruise on a wagon. When at the barn it should be hung as soon as possible on small poles or sticks, these hung on tier poles near together, say six inches apart.

We run ours up to where it now hangs in the barn after it was hung on sticks, and let it yellow there. We find that the dry north wind will cure tobacco up green, before it can yellow, if exposed to it. That is one thing that will prevent yellowing in the field. The barn should be very tight, so as to prevent the wind blowing in at the cracks and curing the tobacco up green before it has time to yellow. It will not yellow as quick here as in the Atlantic States. Some have supposed that tobacco could be thoroughly cured in this climate without firing, but we find that firing has to be done to prevent its spoiling when there is a fog. Our tobacco has not come in case since it was fired so that it can be handled; therefore we cannot tell how much one acre will produce. It will require one man to about four acres of ground, and that we find is as much as he can attend to with justice.

TRUE COTTON.—The culture of the Peruvian tree cotton is attracting attention in California.

HARVESTING SORGHUM AND EVAPORATION.

A correspondent of the *Prairie Farmer* gives the following suggestions and directions in regard to harvesting Sorghum, the best method of evaporating, and how to prevent the cane from "running out."

When the head is black, cut up the cane, tie in small bundles and shock it under a shed. It should by all means be protected from the sun and weather. This arrests the tendency to fermentation and second growth. Permitting it to stand in this way for two or three days, or longer, if the weather is cold, allows time for the culmination of the juice to its greatest per cent. of sugar. If the cane is fully ripe, which may be known by the lower joints becoming quite yellow, it may be worked up as fast as cut; but if the juice is not perfectly matured the cane should be allowed to "season." In securing this maturity of the juice and preventing reacidulation lies one of the great fundamental means of success in the manufacture of sugar, from any variety of cane, and is difficult of attainment, especially in the Imphee, owing to the disposition in the canes not to ripen together. After topping and blading the stalks we are ready for manufacturing.

In manufacturing I have tried various modes of evaporating. Last Fall I constructed a flat pan, with an inclined side, upon an arch, for first heating and skimming the juice, and then running it upon a Cook evaporator. I also tried skimming upon the evaporator, and running the syrup into a separate boiler in which I had placed a thermometer, in order to bring the syrup up to a particular degree of heat, and I have tried the evaporator without any of these aids. In the first mode the syrup crystallized in forty-eight hours; in the second mode I could not make sugar at all, and in the last mode the syrup crystallized in twenty-four hours. Frequently the syrup left in the cooler at night would crystallize by the next morning.

In connection with the evaporator I used shallow coolers, which I kept in a warm room, by a fire, night and day, and the molasses was poured into these and stirred once a day, or until the process of crystallization was complete. I then put it into a draining vessel, with a sieve bottom, for drainage, but during the latter part of the Fall I learned a better plan of drainage, which was to put the crystallized mass into a strong linen bag and subject the whole to pressure. With a good common cheese press an hour's pressure would bring out fifty pounds of sugar sufficiently dry for market.

I have found that the books have set the scale to which the temperature of the syrup should be raised, altogether too high. A temperature of 240 degrees by the thermometer, makes a perfect taffy of the syrup. I would not make my syrup thicker than about eleven or eleven and a half pounds to the gallon.

All the farmers with whom I have come in contact speak of the cane as running out, and much of the cane I have worked speaks the fact as loudly as the farmers. I think this is owing in a great measure to hybridization, and could a pure article of seed be obtained, and the crop be kept free from contamination with broom corn I should apprehend no danger. In proof of this we have the fact that in Southeastern Pennsylvania and New Jersey, they have since the first year raised their own seed, and have as good cane now as ever they had. So long as we mature the seed there is no more reason why it should run out than wheat or corn.

THE FARMER'S FIRESIDE.

Few spots are happier or more cosy at this season of the year, than the rural fireside. He who forms his views of it from recollections of fifty years ago, or even of twenty, has very poor conceptions of the place. There is really no class that has shared more largely in the general prosperity of the country, or that has been more benefited by the investigations and discoveries of science. The old-style farm house, with its broad mouth fireplace, its pine table, bench, wooden-bottom chairs with high backs, is superseded in many parts of the country, and well built, substantial houses in modern style have taken their places. The old kitchen which formerly served almost all purposes except that of dormitory, has been succeeded by a well furnished parlor and dining room, and by a kitchen that boasts more comforts than the whole of the old house afforded. The cooking apparatus is complete, from gridiron to teakettle and the various processes of the culinary art are now conveniently done and regulated by the clock that ticks on the mantel-piece.

And when the meals are over and the labors of the day are done, a clean, carpeted sitting room, well warmed and ventilated, invites the farmer's family to the enjoyment of the farmer's fireside. There is light enough upon the centretable, no longer dispensed with a single tallow candle, with wick of spun tow, that only served to make the darkness visible. The farmer and the farmer's wife and children, have a taste for reading, and the religious, miscellaneous and agricultural papers are fast becoming the necessities of farm life. No class digest more thoroughly what they read. There is no fierce competition in their business over-taxing the brain. At this season of the year there is comparative leisure, and the suggestions of agricultural papers are turned to good account in forming plans for

the coming season. These plans pertain to all the departments of husbandry, and are eagerly participated in by the female part of the household. It is cheering to see the progress of floriculture, and to notice how the flower-borders gains upon other portions of the garden as the younger members of the family come upon the stage. The agricultural matter that is now sown broadcast over the land through the columns of the religious and political, as well as agricultural journals, is bearing fruit. There is a change for the better coming over the rural districts. New attractions are thrown around farm life, and many more of the sons and daughters of farmers will be induced to abide by the old homestead.

FOOT DISEASE IN CATTLE.—At the dinner given in connection with the annual inspection of Lady Emily Foley's Stoke Edith estates, on Thursday last, Mr. McCann called attention to the disease among cattle in the neighborhood, and described the means which he had successfully adopted. He said as soon as the disease made its appearance, it would be dealt with, so that it might not get into the feet of the animal. He himself had had 50 head of cattle down at one time, but now they were reduced to two or three. The feet should be well cleaned, and then bathed with a lotion composed of equal quantities of water and vinegar, with a small quantity of salt put on with a piece of rag or sponge. The disease will succumb to this treatment in the course of four or five days. In the case of pigs, Mr. McCann says he got three pieces of board, of which he made a trough, into which he put the same proportions of vinegar and water, and then, placing the trough against a wall, he put a hurdle on one side, and made the animals wade through it. A cure was effected in three days.—[Bell's Messenger.]

THE PREPARATION OF FLAX.—A correspondent of the *Montreal Herald* mentions a discovery in the mode of preparing flax, which is equally applicable to the Northern and elevated portions of the United States. He observes:—It has been discovered that in Lower Canada we can prepare our flax for the mills with very little trouble or expense, by a mode which answers as well as steeping, and that is, to spread the flax on a meadow in December, and allow it to remain on the ground till April. The snow rots it effectually, and when the snow goes off in April, you will find your flax clean and dry, ready for carting to the south mill, without any expense worth mentioning.

MEASURING HAY.—An old farmer communicates to a contemporary the following method of measuring hay, which he copied from an old publication:

Multiply the length, breadth and height into each other, and if the hay is somewhat settled, ten solid yards make a ton. Clover will take from ten to twelve solid yards per ton.

VOICES OF ANIMALS.

There is a chapter in the natural history of animals that has hardly been touched upon as yet, and that will be specially interesting with reference to families. The voices of animals have a family character not to be mistaken. All the canine bark and howl. The fox, the wolf, the dog, have the same kind of utterance, though on a somewhat different pitch. All the bears growl, from the white bear of the Arctic snows to the small black bear of the Andes. All the cats *miao*, from our quite fireside companions to the lions and tigers and panthers of the jungle. This last may seem a strange assertion; but to any one who has listened critically to their sounds and analyzed their voices, the roar of a lion is but a gigantic *miao*, bearing about the same proportion to that of a cat as its stately and majestic form does to the smaller, softer, more peaceful aspect of a cat. Yet, notwithstanding the difference in their size, who can look at the lion, whether in his sleepy mood, as he lies curled up in the corner of his cage, or in his fiercer moments of hunger or rage, without being reminded of a cat? And there is not merely the resemblance of one carnivorous animal to another; for no one was ever reminded of a dog or wolf by a lion. Again, all the horses and donkeys neigh, for the bray of a donkey is only a harsher neigh, pitched on a different key, it is true, but a sound of the same character, as the donkey is but a clumsy and dwarfish horse. All cows low, from the buffalo roaming the prairie, the musk ox of the Arctic ice-fields, or the jack of Asia, to the cattle feeding in our pastures. Among the birds this similarity of voice in families is still more marked. We need only recall the harsh and noisy parrots, so similar in their peculiar utterances. Or take as an example the webfooted family. Do not all the geese and the innumerable hosts of ducks quack? Does not every member of the crow family caw, whether it be the jackdaw, the jay, the magpie, the rook, in some green rookery of the Old World, or the crow of the woods, with its long, melancholy caw, that seems to make the silence and solitude deeper? Compare all the sweet warblers of the songster family—the nightingales, the thrushes, the mocking birds, the robins—they differ in greater or less perfection of their note, but the same kind of voice runs through the whole group.—[Agassiz.]

The venerable Lewis Cass attained his eightieth year on the 9th of October. Full of years he is quietly going downward to the tomb.

THE GREAT SEMINARY.

The fireside is a seminary of infinite importance. It is important because it is universal, and because the education it bestows, being woven in with the woof of childhood, gives form and color to the whole texture of life. There are few who can receive the honors of a college, but all are graduates of the hearth. The learning of the university may fade from the recollection; its classic lore may moulder in the halls of memory. But the simple lessons of home, enameled upon the heart of childhood, defy the rust of years, and outlive the more mature but less vivid pictures of after days. So deep, so lasting, indeed, are the impressions of earthly life, that you often see a man in the imbecility of age holding fresh in his recollection the events of childhood, while all the wide space between that and the present hour is a blasted and forgotten waste. You have perchance seen an old and half obliterated portrait, and in the attempt to have it cleaned and restored, you may have seen it fade away, while a brighter and more perfect picture, painted beneath, is revealed to view. This portrait, first drawn upon the canvas, is no inapt illustration of youth; and though it may be concealed by some after design, still the original tints will shine through the outward picture, giving it tone while fresh, and surviving it in decay. Such is the fireside—the great institution furnished by Providence for the education of man.

THE FISHERIES A FAILURE.—The extremely short catch of codfish upon the Labrador coasts is confirmed, those engaged in the fishery having scarcely secured fifteen quintals each, instead of the customary catch of two hundred quintals per man. The herring fishery has this year proved a total failure at Labrador, scarcely a barrel having been taken from one end of the coast to the other. It is unfortunate that the herring fishery should have this season resulted in entire failure in Newfoundland also. The catch of herring has been very limited on the Nova Scotia coast. One striking peculiarity in the cod fishery, for the present season, on the coast of Labrador, is the wonderfully impoverished condition of the fish caught and cured. One lot, comprising three hundred quintals, had only yielded fifteen gallons of cod oil. The indifferent quality of these fish will easily be understood, when it is remembered that, as a general rule, a quintal is expected to yield half a gallon of oil. So that, under ordinary circumstances, the three hundred quintals ought to have produced one hundred and fifty gallons, instead of fifteen, thus leaving the fisherman minus a most important item in the economy of his business.—[Exchange.]

THE OCEAN AND THE FALL OF RAIN.—The Atlantic Ocean includes an area of 25,000,000 square miles. Suppose an inch of rain to fall upon only one-fifth of this vast expanse, it would weigh 300,000,000 tons; and all the salt which, when the water was taken up as a vapor, was left behind to disturb the equilibrium, weighed 15,000,000 more tons, or nearly twice as much as all the ships in the world could carry at a cargo each. It might fall in a day, but occupy what time it might in falling this rain is calculated to exert so much force—which is inconceivably great—in disturbing the equilibrium of the ocean. If all the water discharged by the Mississippi river during the year were taken up in one mighty purpose and cast into the ocean at an effort, it would not make a greater disturbance in the equilibrium of the sea than the fall of rain supposed. And yet so gentle are the operations of nature that movements so vast are unperceived.

FRUIT AS MEDICINE.—Ripe fruit is the medicine of nature; nothing can be more wholesome for man or child, though green fruit is, of course, rank poison. Strawberries are favorites with all classes and constitute a popular luxury. Who can tell the number of disordered livers and digestive apparatuses generally restored by that fruit? After them we do homage especially to peaches, and apples, and grapes. We once knew a person, who, believing himself in a decline, determined to eat from four to six ripe apples a day, and note the result; in three months he was well. We know of another who was in general ill health that commenced the habit of drinking a glass of plain cider every morning, and never had a day's illness in 25 years thereafter. Such remedies are simple enough.—[Scientific American.]

MATCHES!

RICHARD MARTIN continues to make his FIRST PRIZE MATCHES, opposite the Seventies' Hall, G. S. L. City. 27-2*

FOUND,

At the Theatre, on Thursday evening, 27th Dec., one black-covered POCKET BOOK. The owner can have it by calling at the Theatre Ticket Office. 27-3

A RARE CHANCE!

An excellent Farm for sale, situated in Weber county, consisting of 60 acres of arable, meadow and pasture land. Possession will be given immediately. Cash, stock and grain wanted in payment. For particulars apply to J. V. LONG, G. S. L. City. 27-2.

WHO HAS LOST

THE COW that is in my possession? She is light red and white, ten or twelve years old, illegitimately branded on the left hip and horn, and has a slit in the left ear. The owner is requested to prove property, pay charges and take her away. THOS. R. G. WELCH, Poundkeeper, Morgan City. 27-3