

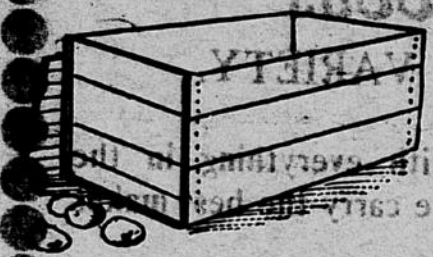
HORTICULTURE

FUMIGATION OF PEAS.

Ontario Agricultural College Describes Effective Method of Exterminating Weevils.

Every year we are asked how to destroy weevils in peas. The Ontario agricultural college at Guelph, Ont., issues a good statement of the facts about peas and insects in bulletin 126. The two pictures shown in cut are taken from this bulletin. The following account is given of the Canadian method of fumigating the peas:

Immediately after threshing the peas were put into cotton or jute bags. As soon as 30 bushels of peas were threshed the fumigating box was prepared. One pound of carbon sulphide was poured out into three pans, which were placed on the top of the peas; the cover was then put on box and weighted with heavy stones. After 48 hours the cover was removed



and the box ventilated. The peas had become dry, as the liquid had changed to a gas, which, being much heavier than air, had sunk down amongst the peas, penetrating them and killing the weevils. The quantity of carbon bisulphide used by us was larger than that usually recommended, as a pound or a pound and a half is generally considered sufficient for 30 bushels of peas, but we wished to get on the safe side.

The fumigating box mentioned is shown in the upper part of the picture. The lower part of this picture shows how barrels may be used for fumigating if desired. The box shown is five feet long, two and four-fifths feet wide and three feet high. It will hold 30 bushels of peas at one time. It is made of pine lumber one and one-half inch thick, tongued and grooved. The end pieces are mortised into the sides. White lead is used at the joints, and the cover is lined with cloth. The box is so well made that it has been used for dipping sheep. Regarding the use of bisulphide this bulletin states:

"When pure it will not injure or stain the finest goods. The commercial liquid has an acrid taste, and an odor like that of rotten eggs. The vapor is more than two and a half times as heavy as air. Carbon bisulphide may be purchased in small quantities from any druggist at about 30 cents per pound, or 40 cents per pint. For larger quantities, better rates can be given by the druggist. The gas, or vapor, which comes from carbon bisulphide is not only combustible, but it is very explosive when mixed with air. Great care should, therefore, be taken to treat the peas in the daytime only, for a light or a flame of any kind brought near the liquid may cause a serious explosion, and smoking near it should be positively prohibited. Moreover, the vapor should not be inhaled, as it is very injurious, even a small portion causing headache, giddiness and nausea. The treatment with carbon bisulphide should be made in boxes, barrels, or 'bug houses,' located some distance from the insured buildings on the farm. With the strict observation of the preceding precautions, no one should hesitate to use the carbon bisulphide. As a matter of fact, we have never heard of any bad results following its use in the treatment of peas."

Propagation of Currants.
Instead of the usual method of propagating currants, viz., making cuttings of the new wood in the fall or early winter and planting early in the spring, a better method has been tried and successful to be recommended to the public. It is as follows: When the stems of the present year's growth are well matured... yet somewhat soft and sappy, make the cuttings. Plant them immediately in either the nursery row or trench, in well-drained, loose soil. Good puddling at the time of planting will insure the cuttings to start good roots in about six or eight weeks. This method has the advantage of giving the farmer strong, sturdy plants, instead of cuttings to set out in the spring.—Rural World.

Fumigate Young Trees.
Whether the trees set out this fall come from infected or clean localities, it is a good plan to fumigate them. They may not need this treatment, but it will do no harm. In spite of all care some eggs or larvae may be left on the trees, which in a short time will overrun the orchard. It is little trouble to treat young stock before planting. A large dry goods box, lined with building paper or otherwise made tight, will make a handy fumigating chamber. Hydrocyanic acid gas or some other poisonous gas will be a very efficient fumigator.—Rural World.

SOIL FOR STRAWBERRIES

Success is More in the Man Than the Variety, Land or Any Other Condition.

The question is often asked: What varieties of strawberries are the best for heavy clay soil? What for sandy loam or for gravelly soil?
W. S. Crawford, of Ohio, an authority on strawberries, says that he does not think the question can be answered in a satisfactory manner. As a general thing varieties are not adapted to special kinds of soil, and will do as well on one kind as upon another, provided they are furnished with the food and drink they need, as they do not depend upon the soil itself, but upon the fertility that is held in solution around the grains of soil.

If the fertility and water are there they will get it and do well, and if they are not there, the opposite results may be expected.
This brings out the fact that we could hope for best results if we knew just what was already in the soil, as some kinds are likely to be wanting in some of the needed elements and there are some varieties that are not as good as others in adapting themselves to imperfect conditions. Some good authorities state that the quality is not so much in the soil as in the sand, because the sand is dry and open and because it is sandy, in a wet season, or with irrigation, it will do as well there as anywhere.

Given nitrogen, potash, phosphoric acid and water in sufficient quantities and most any variety is not particular what kind of soil it is started in, for it will get them if they are there. We advise not to plant some varieties upon low land, not because it is low merely, but because it is more likely to be frosty because it is low. On such land such sorts as the Nick Ormer or Marahall are likely to be killed, while the Haviland would likely grow a good crop.

Then there are varieties that should not be grown on heavy undrained land unless they can be well covered, as they will not be able to hold themselves in the ground, the freezing and thawing causing them to heave badly.
Success is more in the man than the variety, land, climate or any other condition, says Mr. Crawford; for the man who knows how and will use his knowledge will to a great extent overcome unfavorable conditions.—Farmers Voice.

THE ROSEBUD CURCULIO

Hand Picking Seems to Be Only Effective Method of Exterminating This Pest.

We illustrate the Rosebud curculio all parts being enlarged. The insect is about one-fourth of an inch long. As a is shown the adult beetle; b, larva; c, egg; d, side view of head of beetle; e, bug injured by the beetle; f, mouth parts of the larva; g, mouth parts of the beetle. Reproduced from bulletin of the Montana experimental station.

This insect has been little studied and its hibernating habits are not known. It occurs in many parts of the United States, and seems to find the wild rose its natural ally. The beetle is sometimes found eating ripe raspberries and blackberries, but does no particular damage to the rose bush and foliage. The damage is done to the rosebud in which it deposits its egg. The grub, on hatching, feeds on the seeds of the rose apple, and attains full size in its birthplace. In October it eats its way out and disappears into the ground.
The damage is done to the roses by the holes bored in depositing the eggs a good many buds so punctured dry up and drooping. Some, however, live and bloom, and in these the larva grows. The remedy is the hand picking of the rose apples before the grubs emerge. These affected buds can be told by the discolored area on the side of the apple in which the puncture was made when the egg was inserted.—Farmers Review.

Stop All the Small Leaks.
Do not take a notion that your cows are doing well at milking time because you think they are. Possibly they are, but a certain Mrs. Jersey may be laying out for a few days and you are the man who should find out the reason and remedy it. It's the little leaks that wreck modern dairying. Records should be kept and each cow's output tested. Cows that test low and dry off in a few months after calving need no further clemency. Weed them out now, as there is no time like the present for improving your dairy.—Rural World.

Honesty in Packing Fruits.
In handling fruit and vegetables one of the common tricks is in facing the packages, but the deception is soon discovered, and the buyer, nine times out of ten, is pretty sure to find out the trick, and the seller's reputation, if he has any, is badly damaged. If, on the other hand, care is taken to grade and uniformity is adhered to, an enviable reputation can be built up which is lasting. Buyers, whether in the local or distant market, soon learn the brand of the honest shipper.—Midland Farmer.

HISTORY OF THE ANCHOR.

Various Improvements Have Been Made in Its Shape Since the Original.

The ship's anchors in general use, up to the beginning of the last century, consisted of a long, round iron shank, having two comparatively short, straight arms or flukes, inclined to the shank at an angle of about 40 degrees, and meeting it in a somewhat sharp point at the crown. In large anchors the bulky wooden stock was built up of several pieces, hooped together, the whole tapering outward to the ends, especially on the aft or cable side. About the beginning of the last century, states Science Siftings, a clerk in the Plymouth naval yard, Fering by name, suggested certain improvements, the most important of which was making the arms curved instead of straight. At first sight this simple change may seem of little value, but consideration will show that this is not the case. The holding power of an anchor depends on two principal conditions, namely, the extent of useful holding surface and the amount of vertical penetration. The latter quality is necessary on account of the nature of ordinary sea bottoms, the surface layers of which are generally less tenacious and resisting than is the ground a short distance below.

In the year 1831 chain cables began to supersede the hempen ones, with the result that the long-shanked anchors hitherto in vogue were no longer necessary, and anchors with shorter shanks and with heavier and stronger crowns gradually came into use. In consequence of these changes, a commission was appointed in the year 1838 to inquire into the holding power of anchors, and a principal result of its labors was the adoption of the so-called admiralty pattern anchor, which continued to be used in the navy up to the year 1860. The invention of the steam hammer in 1843 made the welding of heavy masses of iron a comparatively easy and reliable process, so that from this time onward the strength of anchors fully kept pace with that of the chain cables which had come into general use.

A number of patents for anchors were taken out prior to the great exhibition of 1851, and public attention having been called to the models there shown, in the following year a committee was appointed by the admiralty to report on the qualifications of anchors of the various kinds. Practical trials were then instituted, and as a result, Trotman's anchor took the highest place, Rodger's anchor being second on the list. Some of the tests to which the anchors were submitted were of doubtful value, such, for instance, as "facility for sweeping." Nowadays, however, at all events for deep ships in shallow harbors, it is considered an advantage for an anchor to offer as little obstruction as possible above the ground.

THE CHEWING INSTINCT.

Exercise of the Jaw is a Desire That is Powerful in the Human.

Seeing that the maxillary apparatus of man has for long ages past been put to vigorous use, it is not surprising that the need to exercise it should express itself as a powerful instinct, says the Lancet. This instinct manifests itself in many and curious ways. During the early month of life the natural function of feeding at the breast provides the infant's jaws, tongue and lips with all the needful exercise. This bottle feeding fails to do, and we frequently find bottle-fed children seeking to satisfy the natural instinct by sucking their thumb, fingers, or any convenient object at hand.

The teeth are a provision for biting hard foods, but even before they actually appear we find the child seeking to exercise his toothless gums on any hard substance he can lay hold of, and there can be no doubt that exercise of this kind tends to facilitate the eruption of the teeth, a truth, indeed, recognized universally, whether by the primitive mother, who strings the tooth of some wild animal round the neck of her infant, or the up-to-date parent who provides her child with a bejeweled ivory or coral bauble.

When the teeth have erupted, the masticatory instinct finds among primitive peoples abundant satisfaction in the chewing of the coarse, hard foods which constitute their dietary, but among us moderns, subsisting as we do mainly on soft foods, affording but little exercise for the masticatory apparatus, it does not find its proper expression, and thus tends to die out. Nevertheless, it dies a hard death, and long continues to assert itself; witness the tendency of children to bite their pencils and penholders; I have known a child to gnaw through a bone penholder, much in the same way as a carnivorous animal gnaws at a bone.

This instinct to chew, for chewing's sake, manifests itself all over the world. In our own country not only do children bite pencils and penholders, but they will chew small pieces of India rubber for hours together. The practice of gum-chewing, so common among our American cousins, evidently comes down from far-off times, for the primitive Australians chew several kinds of gum, attributing to them nutrient qualities, and the Patagonians are said to keep their teeth white and clean by chewing matri, a gum which exudes from the incense bush.

After-Effects Were Bad.
Banks—I don't mind the influenza itself so much, it's the after-effects I'm afraid of.
Rivers—The after-effects is what ails me. I'm still dodging the doctor for \$25.—Stray Stories.



WORTHY of a higher recommendation than I can find words to express... This is what Mr. J. H. Plangman (of Sherman, Tex.) says of Doan's Kidney Pills. He tells his experience in the following words: He says, "Sometime in September I was taken with a dull aching pain across the small of my back, directly over the kidneys. I paid much attention to this at first, thinking it would pass off. But instead of getting better it became worse and in a short time the pain centered through my left hip and down my left leg as far as the knee. This is precisely what kidney trouble will do with the body. It does not always show itself at first, but appears just in this way, when some unusual movement or action brings sharp pains and exhaustive aches, telling of sick kidneys."

Pain across the small of the back.
Mr. Plangman's experience bore this out. Continuing, he says: "I did not know the cause of the trouble, but I am led to believe now that it was first brought about by jumping in and out of the wagon and in some way I may have strained my back. 'I was constantly growing worse,' he continues, 'and I became very much alarmed about my condition. I knew that something had to be done or serious results were sure to follow. I went to a specialist here in Sherman, and underwent a rigid examination.'"

When he relates how the doctor told him that it was a serious case, but that he could cure him for fifty dollars, he says: "I did not know the cause of the trouble, but I am led to believe now that it was first brought about by jumping in and out of the wagon and in some way I may have strained my back. 'I was constantly growing worse,' he continues, 'and I became very much alarmed about my condition. I knew that something had to be done or serious results were sure to follow. I went to a specialist here in Sherman, and underwent a rigid examination.'"

AN ERRAND TO DO.

Traveler Asked to Stop in Texas on His Way from Chicago to New York.

One brother is a rich merchant in the Straits settlement on the Malay peninsula. The other brother was, until a few weeks ago, the cook in a cheap restaurant on South Clark street, says the Chicago Tribune. The merchant sent to the cook a draft for sufficient money to pay his expenses out to Asia, and the cook gave up his job and started for his brother's home. He is sitting there, waiting for the whole incident to be written by the wealthy merchant, which accompanied the draft. In the first place the draft was made payable in New York. The merchant sent you the money in a draft payable in New York. "You can go over and get it cashed there. On the way I wish you would stop at Texas and see brother Thomas. I haven't heard from him for two years now, and I'd like to know how he's getting along."

New Fast Train to Texas.
Via Iron Mountain Route, leaving St. Louis 8:30 a. m. for points in Texas and the Southwest. Direct connection with trains from North and East. In addition to this the Iron Mountain Route has three other trains to Texas, leaving St. Louis 9:31 p. m., 8:40 p. m. and 3:05 a. m. Through Pullman Sleepers, Dining Cars and Elegant Chair Cars. Twelve hours saved to California. Fastest schedules to Texas. Tourist tickets on sale the year round. Write any agent of Iron Mountain Route, or H. C. Townsend, General Passenger and Ticket Agent, St. Louis.

She Was Lucky.
"Yesterday was a mighty lucky day for Miss Prettygirl."
"Why?"
"She proposed to her and she accepted me."
"Yes, people are usually considered lucky when they have got a soft thing."—Houston Post.

Get Your Color Scheme.
Then write us, enclosing two-cent stamp for postage, for attractive and interesting booklets bearing on the southwestern territory and its marvelous development. Interesting reading, suggestive ideas. Address: George Morton, G. F. & T. A. M. K. & L. Ty. Suite K, Wainwright Bldg., St. Louis, Mo.

Pearl Peach—Here is 10 cents, but I hate to encourage you to drink." Wary Walker said. "All I need is 10 cents, but the encouragement is not necessary."—N. Y. Sun.

Do not believe Pilo's Cure for Consumption has an equal for coughs and colds.—J. F. Boyer, Trinity Springs, Ind., Feb. 15, 1900.

Show all you care in the deep, deep sea and thereafter do not go fishing.—N. C. Times-Democrat.

Meet the Cough and works off the cold. Laxative Brome Quinine Tablets. Price 25 cents

The secret of success is constancy to purpose.—Disraeli.

Putnam Fadeless Dyes color more goods, per package, than others.

A sore head is a sign of a shallow one.—Bain's Horns.

How a Farmer was Freed from Misery

Mr. Plangman paid half down and took the treatment and followed it faithfully for four weeks.

Naturally, he thought that he would soon be rid of the trouble, but in spite of the doctoring he goes on to add, "I was in such misery that it was almost impossible for me to do my work."

"It was at this juncture that Doan's Kidney Pills came to my notice and I procured some from the drug store of C. E. Craycroft. I used these pills according to directions and to my surprise I was considerably relieved. The second day and in a short time completely cured."

Pain in left knee
Pain through my left hip
Pain across the small of the back

This is the universal experience of those who have been sufferers from kidney trouble and who have been fortunate enough to test the merits of Doan's Kidney Pills.

There is nothing wonderful or magical about this remedy, it simply does the work by direct action on the kidneys. Doan's Kidney Pills are for the kidneys only and this accounts for their speedy and certain action.

Early indications of kidney trouble come from two sources, the back and the bladder. The back becomes weak and lame because the kidneys are sick, and relief from backache can only be complete when the kidneys are set right.

Aching backs are cured. Hip, back and limb pains overcome. Swelling of the limbs, rheumatism and dropsy signs vanish.
They correct urine with brick-dust sediment, high-colored, excessive, pain in passing, swelling, frequency. Doan's Kidney Pills dissolve and remove calculi and gravel. Relieve heart palpitation, sleeplessness, headache, nervousness.

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Must Bear Signature of
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James A. Quinn, 100 Mercer St., Jersey City, N. J.

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