FARM · FIELD AND GARDEN

PRUNING FRUIT TREES.

With fruit trees pruning is important because it can be used for the purpose of checking the growth as well as for the purpose of thinning the fruit. It is an old and well established maxim among fruit growers that whatever tends to check growth increases the fruitfulness of the plant. Pruning can be used to accomplish this result to a certain limited degree. Plantations which are tardy in coming into bearing may, therefore, by judicious pruning, be brought into profitable production.

Accelerating growth.—Contradictory as it may at first thought appear, pruning is frequently resorted to to accelerate or augment growth in plants. Weak growing nursery stock is frequently cut back during the resting period in order that all the strength of the root may be forced into the formation of a single upright stalk which will make the plant a salable nursery tree.

Rejuvenation of old trees.—Severe pruning is also resorted to with older plants for the purpose of rejuvenating them. Old apple trees and old shade trees are frequently so treated, in order to induce them to throw out strong new shoots

Effect on fruit crops.—With such plants as the peach, which bears its fruit upon the growth of the previous year, pruning is of great importance, as the grower can reduce the crop in proportion to the capacity of the tree. Successful fruit growers thoroughly understand the importance of gauging the quantity of fruit allowed to be borne by a tree to the capacity of the tree, the ability of the tree in this respect being measured by the rate of growth, the variety and the soil and climatic conditions to which it is subjected.

Control of disease.—Pruning is of prime importance also in controlling the action of some of our most dreaded plant diseases. The study of pear-blight, for instance, has shown that this disease is very generally communicated from plant to plant by insects, through the pollen, as they pass from blossom to blossom, or, later in the season, from shoot to shoot. It is also believed that the disease can be carried by the wind and that infection can take place while the vegetative processes are active and the tissue at the ends of the branches can easily be entered by the germs of the disease.

Pear-blight.—The way in which pruning is of service in controlling pear-blight is as follows: It is the natural tendency of the pear and the apple while young to form fruiting spurs upon the body and large branches of the tree. These fruiting spurs produce blossoms from year to year, which are in turn as liable to be visited by bees or other insects carrying the destructive spores of the pear-blight as are the blossoms at the extremities of the branches. It is evident, therefore, that a blossom situated upon the body or larger branches of a tree becoming infected by this disease would communicate it directly to the framework of the tree, with the result that the tree would undoubtedly be fatally injured; but if these fruiting spurs are all eliminated from the body and larger branches of the tree by careful pruning the possibility of infection in this way is overcome. The available means of gaining entrance to the tree by this parasite is confined to the smaller branches, which, if affected, can be cut away without severely injuring or disfiguring the tree. This is, in brief, the method of successfully controlling the pear-blight. It is purely a mechanical operation, but one which requires a rigid execution of the principle of removing all fruiting spurs from the body and main framework branches of the tree as well as cutting out all infested shoots in other parts of the tree.

Plum and peach rot.—In the case of the dreaded plum and peach rot (Monilia fructigenial) the ravages of the disease can be stayed to a limited extent by the removal of branches would interfere and would bring the fruits upon adjacent branches in contact, for it is well known that this disease is readily communicated from fruit to fruit if they come in contact. Thinning, then, which is a process of pruning, has for one of its primary objects the control of this desease for it is the endeavor of successful growers of peaches and plums to have the fruits so distributed upon the branches that they shall not come in contact, even when fully developed. It is the aim of the peach grower to have the fruits at least six inches apart, while it is the object of the plum grower to have them 2½ to 4 inches apart.

POULTRY NOTES.

Pure water is more essential than clean grain.

Chickens hatched in an incubator are free from lice.

Keeping hens confined and unoccupied causes laziness.

As a general rule, a large red comb insures a layer every time.

You can nearly always depend upon the hardiness of all fowls that feather slowly.

Large flocks that are beyond the reach of reasonable attention and care, instead of a profit will prove a loss.

Artificial hatching is profitable only when laying hens are kept to supply the incubators' capacity.

Milk is one of the best egg producers than can be fed to poultry, and they can be given all that they will drink.

Want of exercise and proper feeding are often the cause of fowls getting into the habit of feathers pulling.

Chicks hatched from eggs kept too long are not so vigorous as those hatched from fresh ones.

Whenever a chicken is so sick that it cannot be induced to eat, about the best remedy is the hatchet.

A barrel laid on its side in a secluded place, with a stone on each side to support it, makes a good place for a turkey to lay in.

A hot breakfast from this time on will aid materially in securing a good supply of eggs regularly.

A small male bird running with large hens will be more sure to fertilize their eggs than a large male with small hens.

The nests for the setting hens should be made fresh every time. Not only should all material be removed, but the nest be whitewashed inside and out.

Grinding food for poultry is not necessary unless for the purpose of feeding a mixture or variety that cannot be given them in any other shape.

Fowls are very sensitive to climatic changes, and often regulate their laying by the temperature of the atmosphere.

Should the comb of a hen become frosted, she will rarely lay until the injured member is entirely healed.

While feeding fowls well with a variety of food is essential to egg production, no amount of good feeding will entirely compensate for bad quarters.

DAIRY NOTES.

In building barns for cows don't neglect when drawing the plans, to arrange for plenty of light and sunshine as well for ample ventilation.

A cow will not give down her milk to a milker that she dislikes, or is afraid of, and besides, the milk she does give will not contain so large an amount of fat.

The strippings are richer in fat than the milk that is first drawn, this is one reason why a cow should be milked dry at each milking. Clean milking is of greater importance, however, in keeping up a full flow.

There should always be a friendly feeling between the cow and the milker, and milkers should not be changed any oftener than is absolutely necessary. Our best dairymen lay special stress upon these two points, and it is well for every body to do likewise.

Don't be irregular about the milking time, have a definite hour in the morning, and at night, and milk at these appointed times. The same applied to feeding periods and the importance of these facts cannot be over estimated.

Milking should be done with clean hands and the udder of the cow should be washed if necessary, but one should make it a regular practice to rub the udder with a damp cloth before each milking whether there is any apparent necessity for this or not.

A nervous cow is preferable to a stolid one. The chances are that she would give more and better milk than her dull, mopish sister, there are degrees of mental development even among cows. Intelligence often accompanies profitableness as a milk yielder.

The Dangers of La Grippe

To Persons of Low Vitality—Local and Constitutional Treatment Necessary—The Advantages of

Dr. Chase's Remedies.

With the very young and very old, and with persons of low vitality, the dangers of la grippe are very great. Pneumonia of a violent and fatal form is a frequent result. It is also claimed that very many cases of consumption can be directly traced to la grippe. The after effects of la grippe are most often felt in the nervous system. The extreme debility in which this disease leaves its victim is more than most nervous systems can endure—paralysis or prostration follows.

The most successful doctors advise their patients to avoid exposure to cold or over-exertion, and recommend both general and local treatment, such as Dr. Chase's Nerve Food, to strengthen and tone the system, and Dr. Chase's Syrup of Linseed and Turpentine to loosen the cough and protect the bronchial tubes and lungs from threatened complications.

Any honest and conscientious doctor will tell you that this combined treatment recommended by Dr. Chase cannot be surpassed as a means of relieving and curing la grippe, and restoring the weakened and debilitated body to its accustomed vigor. Dr. Chase's Syrup of Linseed and Turpentine is too well know as a cure for bronchitis and severe chest colds to need comment. Dr. Chase's Nerve Food seeks out the weak spots in the system and builds them up. It rekindles the vitality of persons weakened by disease, worry or over-exertion, and cannot possibly be equalled as a restorative and reconstructant to hasten recovery from la grippe, and to prevent serious constitutional complications.

Dr. Chase's Syrup of Linseed and Turpentine, 25 cents a bottle, family size (three times as much) 60 cents. Dr. Chase's Nerve Food, 50 cents a box, six boxes for $2.50, at all dealers, or Edmanson, Bates & Co., Toronto. To protect you against imitations, the portrait and signature of Dr. A. W. Chase, the famous receipt book author, are on every box.

CONSUMPTION CURABLE.

Good Blood Makes the Lungs Strong and Expels Disease.

The time to cure consumption is not after the lungs are hopelessly involved and the doctor has given you up. Consumption preys upon weakness. Strength is the only measure of safety. Do not let the blood become thin and watery. That is an open invitation to disease to take possession of your system. Dr. Williams' Pink Pills are the best tonic and strength builder known to medical science. The record of this medicine proves conclusively that taken when the symptoms of consumption develop it builds up, strengthens and invigorates the patient to a point where the disease disappears. Here is a bit of positive proof. Miss Blanche Durand, St. Edmond, Que., says: "While out boating in September, 1901, I got my feet wet and took cold. I treated the cold in the usual way, but the cough seemed to cling to me. As several months passed by and I was not getting better, I went to a doctor in January, 1902, and he told me that my lungs were affected and I was in consumption. Returning home a friend in whom I had much confidence strongly urged me to take Dr. Williams' Pink Pills. I began taking the pills and soon found they were helping me. The cough grew less severe; my appetite improved and my strength began to return. I continued taking the pills for about two months, when I found my health fully restored, and I have not since experienced any weakness. I am sure Dr. Willioms' Pink Pills saved my life."

Such cases as these prove the power of Dr. Williams' Pink Pills. They make new rich, red blood, and in this way cause all diseases due to bad blood and weak nerves. You can get these pills from any medicine dealer or by mail at 50 cents a box or six boxes for $2.50, by writing the Dr. Williams' Medicine Co., Brockvil'e, Ont.

COUNTER RESOLUTIONS.

When Mr. Blank had finished his dinner he and his wife adjourned to the sitting room and drew their chairs close up to the glowing grate.

"Clara," he began, earnestly, "I've been making some new resolutions to-day."

"Oh, I'm so glad, dear!" his wife exclaimed, in a tone of sympathetic rejoicing.

Mr. Blank appeared a little nettled, but swallowed hastily, and resumed the subject.

"I just jotted them down as I thought of them. Here, I'll read them to you," and he drew out a paper from his vest pocket and put on his eye-glasses.

"And if I can help you at all, dear ——" Mrs. Blank murmured, softly; but Mr. Blank had begun his reading.

"Resolution No. 1. Buttons kept carefully sewed on vests, coats, and other wearing apparel.

"No. 2. Handkerchiefs, socks, and collars kept in right-hand upper drawer of chiffonnier."

Mrs. Blank's eyes were blazing dangerously, but he was foolhardy enough to continue.

"No. 3. No bills accepted for pay-

"No. 4. Cost of spring bonnet not to exceed four dollars."

Mrs. Blank here broke in vehemently:—

"Yes, sir, and I, too, have a set of new resolutions. I don't have to write them down either! Here they are:—

"No 1. Not leave the fire for your wife to light every morning.

"No. 2. Bring home the money spent at clubs and banquets to pay the grocer's bill.

"No. 3. Not squander money on cigars."

"Why, Clara, you know I was only joking," Mr. Blank endeavored to temporize.

Blobbs—"Have you ever had any experience with train robbers on your travels?" Slobbs—"Well, I've stacked up against a good many Pullman car porters."

Fortunate is the man who can borrow enough money to pay his debts.

PORT ARTHUR DEFENCES

IMPREGNABLE AS THE ROCK OF GIBRALTAR.

Shots of Enemy Would Fall Behind Military Works and Arsenal.

Port Arthur, the ancient seaport of Lu-chun-cheng, was until the war between China and Japan in 1894 in the undisputed possession of the Chinese. On Nov. 21, 1894, it was captured by Japanese troops. By the treaty of peace between China and her neighbor, which was signed at Shimoneseki on April 17, 1895, it was ceded to Japan, with practically the whole of the Liautung Peninsula, including all islands appertaining or belonging thereto, says the London Times.

Owing to the action of Russia, supported by France and Germany, Japan was compelled to retrocede under Article 1 of a convention signed at Pekin on Nov. 8, 1895, all the territory occupied by her in Manchuria and by Dec. 31 of that year the last Japanese soldier had been withdrawn.

It is unnecessary to recall the process by which, in less than two and a hglf years after its evacuation by the Japanese, Russia had established herself in Port Arthur, never of her own free will to quit it. No sooner had the lease been extracted from China than the Russian Government set to work to render their new possession impregnable for all time. It would not be out of place here to describe roughly the position and physical aspects of the port. Situated on the south-eastern extremity of the Liau-tung Peninsula, Port Arthur is just outside the southern limit of Winter ice, this immunity being one of its most valuable features.

THE HARBOR

is an oval inlet of the sea, two miles long from east to west, and a mile from north to south; it is surrounded by hills of varying elevation, and its sole entrance is on the southern side by a narrow channel guarded at the south-western end by a couple of dangerous reefs, and protected against bad weather by a narrow spit of rocky land known as the Tiger's Tail, which runs diagonally across its northern extremity. This harbor, however, was so shallow that until extensive dredging aperations had been undertaken no vessel of any size could enter; even now there are berths for but three battleships in addition to smaller craft. For this reason the major portion of the Russian fleet has always been forced to lie outside the heads, or else enter the large swing basin or wet dock, which lies to the east, facing the entrance to the harbor proper.

The approach to the harbor and basin is very confined, and from the nature of its surroundings is very easily defended. To the east, Kwangchin Hill rises to a height of nearly 250 feet above the sea level, and its elevation has been taken full advantage of by the erection and around its summit of three powerful batteries, mounting, besides smaller guns, four new breech-loading cannon, weighing 63½ tons, on fortress mountings. On the side facing the entrance and half way down the slope are two batteries of quick-firers, for the most part Canet 5.5-inch and 75 mm. guns, in addition to a torpedo and searchlight station.

THE FORTIFICATIONS

extend from the Kwang-chin-Shan Fort for a distance of nearly 40 versts in the northern direction, and this is joined by a circle of batteries in the hilltops surrounding the town to the second long line of defences starting south around the peninsula from the Mantow Hill. So much for the eastern side of the entrance. On the west the most important fort is the Wei-Yuen, and this is joined to several small quick-fire batteries commanding the entrance by castellgted bridges. A short time ago the whole of these fortifications were surrounded by a high wooden palisade to prevent the inquisitive from learning too much.

The width of the entrance from Pinnacle Rock on the west to the opposite shore is barely 350 yards, whilst the three-fathom channel at its narrowest is not more than 500 feet in width. Within the heads it widens out somewhat, and between ythe end of the Tiger's Tail and the entrance to the basin there is a width of 430 yards; even this makes it a most difficult task for any vessel over 300 feet in length to entet or leave either the harbor or basin.

On the Tiger's Tail are placed seven Canet 5.5-inch quick-firers in an open battery at an elevation of not more than 10 feet above the sea; at the extreme end of the spit is a quadruple launching slip for destroyers, from which two lots of four have recently been launched after being sent out in sections. Behind this, again, is a circular observation tower and flagstaff.

THE BASIN OR EAST PORT

was excavated primarily by the Chinese, as also the dry-dock cut in its northern side. It has an average depth of 3½ fathoms and can accommodate nearly a dozen large vessels. The western end is devoted exclusively to torpedo craft, though a dock for these small boats is in the process of construction on the eastern side. The dry-dock, repaired and enlarged by the Russians, is 452 feet over all, 370 feet over blocks, 90 feet wide at the entrance, and has a depth on the sill at high water, ordinary spring tides, of 32 feet. These figures are interesting, for they show that, even with her draught augmented nearly 6 feet, the Retvizan might still enter the dock for repairs at high water. An 80-ton sheerlegs is in position on the land side of the basin, and immense engine shops and repairing houses are in course of construction wherever there is an available plot of land. Just inside the Tiger's Tail the mud has been dredged away so as to allow destroyers to lie alongside the building slip, and here eight to a dozen are nearly always moored.

As to the town, the old Chinese city is rapidly becoming a mass of barracks, and on every side the dirty homes of the Celestials are giving way to fine stone buildings; the modern town is canstructed on the European plan, its only and all-pervading fault being excessive filth, stench and a complete lack of drainage.

FINE WATER WORKS

have for some time been in course of erection, and before long the electric light will be installed all over the town, though whether by the Russians remains to be seen. On the high hill at the back of the town are placed a lighthouse, signal station, and telephone office; from here a superb view of the surrounding country may be obtained. To the right of this hill (facing seawards) lies the newly-built residence of the Viceroy, the only respectable habitation in that quarter of the town. To the left stretches the new town, reaching almost to the surrounding hills about four miles to the east. Prominent amongst the many buildings are the new barracks, a series of 24 grey stone edifices placed in four rows of six each.

Nearer the harbor are the prison telegraph office, court-house, and Customs, but nothing in the nature of a private dwelling is to be seen anywhere. Beyond the new town, and divided from the east port by a narrow strip of land, is a large, shallow lagoon, and a second smaller one, into which empties a river, cuts off the old town from the new. A wide bridge spans this at its narrowest place and leads down a broad road to the gates of the arsenal and dockyard.

Given time, the Russians would have made a model city of Port Arthur; but, unfortunately, more attention was paid (and from their point of view rightly so) to its defences than to its development along peaceful lines.

THE ADMINISTRATION

of the town was entrusted to a committee of officers under the presidency of the Viceroy, and in his absence the senior naval officer present.

Militarism is, of course, rampant; and; but for a few Chinese, who have found the Russian rule beatable, one seldom meets a man clad in anything but a uniform; the "ricksha," typical of the whole of China, has been replaced by the "drosky" driven by "mujiks" of an unusually dirty type. As regards facilities for travel, there was (for it is wiser to speak in the past tense now) a splendid railway connection with the trans-Siberian system, and on Mondays and Thursdays a through Pullman express ran to Irkutsk, meeting the trans-continental section from Vladivostock. A line of steamers under Russian control made daily trips to Chefoo, eight hours distant, and Russian "tramps" had been taking more and more of the Corean coast trade away from the Japanese, who until recently possessed a practical monopoly.

One more feature is worthy of notice—the so-called impregnability of Port Arthur. From the sea I think it would be almost as impossible to capture as Gibraltar, and ships moored in the inner harbor would lie in perfect safety. Further it is moot point whether the dockyard could be damaged by high-angle fire; the works and arsenal lie so closely under the Kwangchin Hill that any projectiles so discharged would more probably range far into the town at the back. From the land side it is difficult to judge of the value of the defences, but it appeared to me that a determined foe might very conceivably be able to rush the place by a concerted attack from several points. But for these and other matters we must await the course of events.

HELP YOUR CHILD.

When your child—whether it is a big child or a little baby — suffers from any of the minor ailments which come to children, or is nervous or fidgety and doesn't sleep well, give it Baby's Own Tablets. This medicine is the quickest and surest cure, and the safest, because it is absolutely harmless. It will help the feeble new born babe as surely as the well grown child. Mrs. F. D. Kirk, The Barony, N.B., says: "I have used Baby's Own Tablets with most satisfactory results, and do not feel safe without them in the house. I find that one dose is usually sufficient to cure the small ailments of the stomach or bowels." If you do not find the Tablets at your medicine dealers write direct to The Dr. Williams' Medicine Co., Brockville, Ont., and they will be sent post paid at 25 cents a box.

DR. A. W. CHASE'S CATARRH CURE ... 25c.

is sent direct to the diseased parts by the Improved Blower. Heals the ulcers, clears the air passages, stops droppings in the throat and permanently cures Catarrh and Hay Fever. Blower free. All dealers, or Dr. A. W. Chase Medicine Co., Toronto and Buffalo.