

Important to Orchardists.

Among the new experiments conducted at the Ontario Experimental Farm, is one by Prof. Panton, who inserts in his annual report the following:—"The McGill Bros., of London, Ont., sent some of their tree protectors during the summer of 1894, and desired us to try their success in trapping codling moth. These funnel-shaped protectors are fastened around the trunk of the tree, a few feet from the ground. On the under side and in the upper part a piece of tow is placed for the purpose of affording the larva a hiding place. I placed the 'protectors,' representing the sizes, 1, 2, 3, 4, upon twenty-five trees, and obtained the following results:—On six trees, with size 1 protector, 290 insects were captured; size 2, 260 were captured on eight trees; size 3, 63 were caught on seven trees; and on size 4 (the smallest) 14 were taken from four trees, making a total of 641 codling moths on twenty-five trees, an average of 25 worms per tree."

Prof. Craig, in his late bulletin on spraying to destroy codling moth, says:—"In Eastern Canada there is only one brood of this insect, which can be destroyed by spraying with Paris green, once or twice, immediately after the flowers have fallen. West of Toronto there are two broods, the latter of which is by far the most destructive. In this region, banding the trees in autumn with strips of burlap, wisps of hay, or one of the many contrivances known as 'tree protectors' will be found necessary. The caterpillars resort to these shelters when ready to spin their cocoons, and may be easily destroyed at any time before the following spring, when the moths emerge."

When we put the testimonies of these professors side by side, surely we have something important to every apple grower, at least in Western Ontario; but why does Prof. Craig draw a line at Toronto? The codling moth is becoming a more destructive pest to our apple industry year by year, which demands the putting into practice of every practicable means of destroying this trouble. The protector that Prof. Panton speaks of, is said to be especially valuable in capturing the cankerworms, plum curculio, and climbing cutworms, and coupled with spraying, should enable the fruit grower to wage successful war against these ever-increasing pests.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

INDURATION OF MAMMARY GLANDS.

SAMUEL W. BISHOP, Sinaluta, Assa.:—"I have a cow eight years old that last fall got an over-feed of wheat. The skin on the udder turned dark purple, and after a while peeled off. The milk became caked in the bag. I bathed and greased it, and milked out all the thick milk I could, the milk continuing thick for a long time. I tried to dry her, off but the bag kept filling up; had to be emptied every few days all winter. She calved about two weeks ago, and before calving made a very large udder, and it got so hard I could get nothing out of it. I rubbed it with spirits of turpentine, bathed it with hot water, put on bran poultices, and poulticed it twice with cow-dung. All I have accomplished is to reduce the size of the bag and get out a very little thick milk. I have pushed a small feather up the teats three or four inches; allowed the calf to suck every day till it got tired of sucking, as it got no milk. I am now bathing it once a day with hot water, and rubbing with lard and coal oil, mixed. There is a large, hard lump high up in the back part of udder. Can you prescribe anything that will cure her, so she will give milk this season?"

[I think that your description of the case will warrant me in stating that evidently such structural changes have taken place in the udder as will seriously and permanently interfere with the secretion of milk. Try the following treatment: Tincture of iodine, six ounces; tincture of opium, two ounces; soap liniment, four ounces. Mix and apply with smart friction twice a day. Give internally one and a-half drams of iodide of potassium, morning and evening, in gruel or mash, for ten days. Use a proper milking tube to draw the milk or fluid from the teats twice daily.]

W. A. DUNBAR, V.S., Winnipeg.

CARIES OF JAW-BONE—PRESCRIPTION FOR LICE.

D. W. GRIMMET, Elm Valley, Man.:—"I have a large mare, six years old, with a hard swelling underneath on the left side of the lower jaw, right under the left row of teeth. It is about the size of two hen's-eggs, is hard, and has been running matter all winter in a very limited quantity. The mare's teeth seem to be all right; she feels well and stands the work well. Please advise. 2. Please give prescription for killing lice on horses."

[1. The bone is diseased and the part will have to be opened and all the diseased portions removed before it will heal. If possible, employ a veterinary surgeon. 2. Stavesacre seed, four ounces; soft soap, six ounces; water, one gallon. Boil down to half a gallon, add carbolic acid, two ounces. Enough for three colts. Rub well into the lousy parts.]

W. A. DUNBAR, V.S.]

SCIRRHUS CORD.

SUBSCRIBER:—"I have a two-year old colt which was castrated a year ago. Since then there is a growth about half the size of a goose-egg. Would you advise to have it removed, and would it hurt the sale of him?"

[Tumors sometimes form on the spermatheca cord as the result of castration. They are often due to rough usage or dragging on the cremaster muscle during the struggles of the animal. If in castration the ends of the cord are bruised or left too long, so as to become fixed by the closing of the external opening, tumors will form on the end and grow to an immense size, from the persistent irritation. They give rise to a peculiar, stiff, straddling gait when walking, and a constant discharge from the parts. Very often the pus becomes lodged and pyæmia sets in, causing death of the animal. We certainly advise you to put the animal under the care of a qualified veterinary surgeon and have the tumor removed by an operation.]

DR. WM. MOLE, M.R.C.V.S., Toronto.]

FATALITY AMONG YOUNG PIGS.

The past winter being long and exceptionally cold in many parts of Ontario, a great deal of stock, brood sows included, were confined more than usual. Towards the close of the season a number of reports reached us of fatalities among litters of young pigs. One reader reports that they began first to turn red or purple around the ears, and panting very hard, would die in about a week. The lungs were found slightly inflamed, the liver large and dark. The sow had been fed on middlings, with salt and ashes, and had a warm bed of straw.

Mr. John Pike, Locust Hill, reports carrying through the long winter about 200 hogs, only losing two or three, but says the winter was a very hard one on pigs that were not kept clean, warm and dry. The floor of the stable where his Yorkshires sleep is raised from four to six inches higher than the rest, and being cased in, the bedding is dry and warm, and the pigs never get chilled.

Mr. John Bell, of Amber, reports no trouble in his locality, where there is scarcely anything but Tamworths and Tamworth grades. "And you know," adds Mr. Bell, "they are not susceptible to disease. As the quarantine herdsman said at the World's Fair time, 'they would not take cholera.'"

H. George & Sons, Crampton, also report having good luck with their young pigs this spring. Any deaths among young pigs in their locality seem to have been caused through neglect or cold weather. Some losses were reported in the very early litters, pigs not being able to run out or get at the soil.

Mr. S. Coxworth, Whitby, states that he has never lost so few as this season, nor has he heard of any trouble in his locality. In former years he has observed them act as described by our correspondents, especially as to the panting and labored breathing. Having examined them closely after death, he found, in every case, the intestines inflamed and sore. He had every reason to believe the trouble arose from feeding the sows too much concentrated food, and lack of exercise. It scarcely ever occurs after the sows have a run to grass.

Capt. A. W. Young, Tupperville, reports fall pigs wintering well, but some heavy losses among the young litters. Many brood sows did not get sufficient exercise and were fed only corn, so that the young pigs came into the world very weak, and receiving insufficient milk, or none at all, soon perished. One morning the farmer comes out and finds the sides of the youngsters working like a miniature pair of bellows, and one after another they die from the fatal hug—"thumps!" The Captain has no faith in nostrums. For pigs badly affected with thumps or rheumatism the only remedy he would recommend is the axe. Preventive measures are the best—such as exercise for the sows and feeding them more roots, ensilage, and bran, as well as some corn.

R. H. Harding, Thorndale, reports that probably 75 per cent. of the February and March litters in his locality died, but heard of none lately. Some appeared to be very weak, as though farrowed before their time, and would die in two or three days, others suddenly going off at three and five weeks old. He attributed the trouble to strong food and lack of exercise. Weaning the young pigs had been found a successful remedy.

[Mr. J. E. Brethour, Burford, would recommend small doses of spirits of turpentine, about a tea-spoonful to four little pigs once daily.]

ANOTHER AILMENT.

S. A.:—"We have a litter of ten young pigs. When one week old several of them seemed to have a difficulty in breathing, and, finally, in a week or so the affected ones all died. This same sow's pigs last fall seemed similarly affected. All lost flesh, and when fifteen to eighteen days old took the scours and all died within five days. We have lost four litters in this way. The sows were in good condition. Their food when pregnant was roots, bran, and milk; in summer, grass, bran, and milk; when nursing, skim-milk, ground oats, and shorts. What is the trouble? They have comfortable sleeping quarters."

(2) "We had a calf born lately. It has a thickness about the throat. Three years ago we had quite a number born the same way; one or two were so badly affected that they could not swallow, and only lived twelve hours. What is likely the trouble, cause, etc.?"

[1] Winter breeding of pigs has been very hazardous, on account of the great mortality arising from errors in feeding—a disease similar in character to white scour in calves—due entirely to indigestion. The treatment recommended some weeks ago has been entirely successful. Carefully feed the sow on weak gruel, made of sweet skim-milk, with a little oatmeal, shorts, and flax-seed meal. Feed warm until the end of two weeks. She should have all she will eat up clean of sloppy food. Over-feeding, or feeding on coarse food, will cause the death of the young pigs by scouring. There should be a supply of salt, sulphur, and wood ashes where the sow can always get at them. A half-pint of lime-water added to each feed will entirely prevent this disease.

(2) The malignant tumors (swelling of the thyroid gland, or bronchocele) in the cow are mostly hereditary, and their favorite seat seems to be the lower jaw and around the neck. They are described as bronchocele goitre, and treatment is of very little service. See that the bull is perfectly healthy, if not, change him. We have also a disease named "Actinomycosis" where the growth has an irregular surface, but does not usually attack stock until two years old.

Miscellaneous.

ABNORMAL GROWTH.

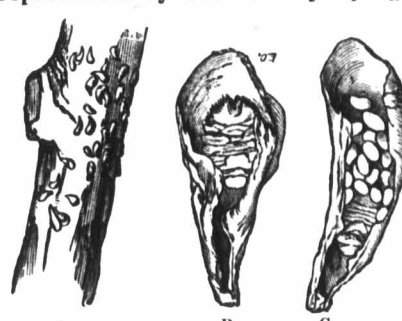
W. H. P. SMITH, Kent Co., N. B.:—"I am sending you two heads of timothy which I found in my garden last summer. You will notice they have the appearance of having sprouted from nearly all the seeds. The seeming sprouts are in many cases more than half an inch long. Can you tell me the cause of it growing thus?"

[It is believed by botanists that all parts of a flower primarily came from leaves. This instance seems to be a reversion of the pistil back to its original state. We have like instances in our double flowers, by the pistils and stamens becoming petals. There is no other reason for this abnormal condition than for many other freaks in nature.]

OYSTER-SHELL BARK-LICE

L. K. JOHNSTON, Wellington Co.:—"There is something coming on and killing the trees of our young orchard. I am sending you a piece of bark, covered with the pest, for your identification and remedy."

[We find that the bark sent us is almost covered with oyster-shell bark-lice (*Mytilaspis pomonum*), represented by the accompanying illustration. A



represents a twig infested with the lice. B represents a scale much magnified and inverted, showing the insect, under the side. By the middle of August the female louse has become little else than a bag of eggs, and the process of depositing these begins, the body of the parent shrinking day by day, until finally, when this work is completed, it becomes a mere atom at the narrow end of the scale. At this time the scale inverted has the appearance shown at C. The scales are about one-sixth of an inch long, and the insect, when hatched, can, with difficulty, be seen with the naked eye. Remedy.—The most effective remedy is to scrape off the loose bark in winter or early spring, and rub on a solution made by adding one part of crude carbolic acid to seven parts of a solution of soft soap, one quart; or hard soap, one-quarter pound; in two quarts boiling water. As soon as the young lice are hatched and begin to move, which is usually between the 1st and 15th June, according to location and season, the trees should be sprayed with kerosene emulsion. It will require careful watching to see the movements of the lice when they come out. It is important to spray at just the right time, as the little insects are in motion only a few days when they insert their little beaks, after which a case like a miniature oyster-shell forms over them, which protects them from the spray. As a precautionary measure, every young tree should be carefully examined before, or soon after, planting, and cleansed if necessary.

Winter cabbage can be successfully and cheaply grown if sown along with carrots or mangels before May 20th. They will be less likely to be troubled by insects when standing singly here and there in the field than if in a solid row or patch. The cultivation necessary for the roots suits the cabbages famously. If the carrot patch is already sown, the cabbage seeds can be put in afterwards. There is no better place than the root-field for either cabbage or tomatoes, either sown or planted.