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a week under the floor of the other barn before we found it."

Just here the spirit moved my friend the drover to suggest to his companion that they go back to the smoking-car, so I heard no more of his experience among the farmers.

Whether we deserve it or not we farmers have a pretty shady reputation among the people of the towns and cities. As far back as I can remember I have heard stories about the close-fisted and crooked farmer. They say where there is much smoke there must be some fire, so I suppose there must be some ground for these accusations. In fact, I have had some first-hand information given to me along this line in past days. I remember when I was a boy drawing stove-wood into a nearby town and being told by another farmer to give good measure but to pile the wood so that there would be plenty of holes in it. "So that you could throw a dog through it", as he expressed it. The idea was that by giving good measure you would satisfy your customer and he wouldn't be so apt to notice the loose piling. Another scheme for getting something for nothing that I have heard of was to throw a pail of water on a freshly-removed cowhide and let it freeze slightly before rolling it up. And I have also heard of some men who made a habit of shoveling snow into their oats before they hauled them to market. So I don't know that we can altogether blame those that are charging us up with dishonesty.

These practices are not general. We all know that. But when a few have been proved guilty it has a way of involving the rest. The tendency is to judge a class by the individuals in that class with which you are acquainted.

As a general thing farmers are square and honest in their dealings with their fellowmen. I have found that out by experience. Apart altogether from the moral side of the question they know that it doesn't pay to put through a crooked deal. They understand that the most short-sighted kind of business policy is that which tries to get the better of another man in a deal. In the long run it is only as we give that we get. Only as we help others to be prosperous that we become prosperous ourselves. The mean and dishonest man sometimes accumulates wealth but he never develops a decent character and without that he's as poor as any beggar. As I said, the average farmer of to-day knows all this and he isn't trading off the things of real value for the shadow. As we have seen, he has, among some people, a reputation to live down, but that it will be done we feel sure. A good name can be acquired as well as a bad one.

Nature's Diary.

A. B. KLUGH, M. A.

Canada From Ocean to Ocean—V

When we pass south of the line drawn from Grimsby to Sarnia we notice plants and animals which are not found elsewhere in Canada. This line does not, of course, constitute a hard and fast boundary, with an entirely different fauna and flora to the north and south of it. As a matter of fact as we journey south from the middle of Central Ontario we begin to encounter new species, and this is particularly true if we examine the river-valleys, since river-valleys always form northward extensions of southern faunas and floras. Thus in the Grand River valley a little south of Galt we find some trees and other plants which are characteristic of a more southern flora than that of the surrounding country. But this line marks off a portion of Canada in which these southern species occur in sufficient numbers to give a distinct tone to the whole flora and fauna.

The trees which are characteristic of this zone are the Black Walnut, Chestnut, Yellow Oak, Chestnut Oak, Hackberry, Button-wood, White-heart Hickory, Sassafras, Pawpaw, Tulip Tree, Kentucky Coffee Tree and Honey Locust.

Characteristic herbaceous plants of this region are the Florida Milkweed, Swamp Rose Mallow, Wild Indigo, Golden Seal, Wild Potato Vine, Ironweed, Yellow Nelumbo and Prickly Pear Cactus. The last mentioned is the only cactus which occurs in eastern Canada and it is restricted to the extreme southern part of this region. The Swamp Rose Mallow is a tall and handsome plant, somewhat resembling a Holly-hock, which grows in marshes. The Yellow Nelumbo is a water-lily which has its leaves raised high out of the water and bears pale yellow flowers. The tubers of this species are mealy and edible and the seeds also are edible.

Among the reptiles characteristic of the region under consideration are the Hog-nosed Snake, Blue-tailed Lizzard, Musk Turtle, Speckled Tortoise, and Wood Tortoise.

The Hog-nosed Snake is of pretty general distribution in this area, and is well known, having several common names, such as Blowing Adder, Blowing Viper and Puff-adder. These names are entirely erroneous since it is neither a viper nor an adder, but they are applied to it because of the generally accepted idea that it is venomous. As a matter of fact it is entirely harmless, but is a great bluffer. If suddenly approached it flattens the head and neck and hisses violently, thus making itself appear extremely dangerous. If this bluff does not disconcert the intruder it proceeds to die. That is it throws itself upon its back gives some convulsive wriggles and lies motionless. It may then be picked up and hung on a fence or over a limb without showing any evidence of life. But if it is placed on the ground on its abdomen it has to die all over again, as its idea seems to be that a dead snake must be on its

back, and this is the one weak link in its otherwise perfect simulation of death. It is a pity that the harmlessness of this snake is not more generally known as it is a beneficial species consuming large numbers of rats and mice.

The Blue-tailed Lizzard or Blue-tailed Skink as it is sometimes called is the only lizzard found in eastern Canada, the other little animals which are usually termed being in reality salamanders. There are several birds which are found in Canada only in this region—the King Rail, Bob-white, Cardinal, Carolina Wren, Dickcissel, Orchard Oriole, Grasshopper Sparrow, Cerulean Warbler, Yellow-breasted Chat, and Blue-gray Gnat-catcher.

The Bob-white, frequently called Quail, is in Ontario so near its extreme northern limit that the winters often prove disastrous to it, and as a result of this it is not able to stand even moderate hunting as well as it can further south. Too much shooting has unfortunately rendered it extinct in some localities which it formerly inhabited.

The Cardinal, that well-beloved and brilliant songster of the Middle and Southern States, is a summer resident in some portions of this territory and seems to be gradually extending its range, and the same is true of the Carolina Wren.

The Grasshopper Sparrow, closely allied to the common Savanna Sparrow, is so-called from the insect-like quality of its weak song.

The Dickcissel is a handsome bird common in the Central States and which occurs in limited numbers in the southern part of this area.

The Yellow-breasted Chat, the largest species of the Warbler Family, breeds on Point Pelee. This bird is almost another Mockingbird for variety of notes and calls.

The Blue-gray Gnatcatcher is a little bird only four and a half inches in length and as it keeps to the tops of the taller trees it is easily overlooked and may possibly be commoner in Southwestern Ontario than is usually supposed.

In addition to the above-mentioned birds there are one or two species, which are commoner in the middle states, such as the Mockingbird and Chuck-will's-widow, of which one or two specimens have been seen in the southern portion of the area under consideration.

(To be continued.)

THE HORSE.

Wounds.

While it is usually wise to secure professional attention in cases of serious wounds, it is well that all owners of horses, or those in charge of them, should have an intelligent idea of the proper treatment of accidents of this nature. In many cases where important blood vessels are severed fatal hemorrhage would result before aid could be got, unless means were taken to prevent it, and in other cases it may not be possible to secure the services of a veterinarian, and treatment must of necessity depend upon the skill procurable; hence we believe it wise to consider rather minutely the different kinds of wounds, and the necessary or advisable manner of treatment. A wound may be defined as a solution of continuity of living tissue, induced by some mechanical means. Wounds are classified under the following heads: Incised, Punctured, Contused, Lacerated, Gunshot, and Poisoned.

Incised Wounds.—An incised wound is one made by a sharp-cutting instrument. The textures are divided evenly and smoothly; there is no tearing or bruising of the parts, hence, on account of the blood vessels being cut instead of torn the bleeding is usually much greater than in wounds of a different nature. If the wound be made parallel to the course of the muscular fibres of the part, there will be little gaping of the edges so long as the parts are kept in apposition; but if the incision be across the direction of the muscular fibres, or transverse to the axis of a limb, the lips of the wound will be drawn apart in proportion to the tension of the muscles, the deep-seated tissues often dividing further than the superficial owing to the retraction of the muscular tissue; and a cavity is sometimes formed in which blood and pus will collect and retard healing.

Treatment.—The treatment of incised wounds may be said to be somewhat simple, but some important points must be observed, viz, first, to arrest bleeding; second, to remove all foreign bodies and cleanse the wound thoroughly; third, to effect and maintain co-adaptation; to guard against excessive inflammation and prevent infection. Bleeding, whether from an artery or a vein, unless slight, must be arrested promptly. If from an artery the blood will be of a bright red color and escape in jets; if from a vein the color will be a dark red and the stream will be constant. Arterial hemorrhage is the most serious. If the vessel be small and only partially severed the blood will escape more or less freely in jets, as stated, and in many cases if the artery be completely severed with a knife the ends contract and bleeding ceases. The coats of an artery are composed largely of elastic tissue, the fibres of which curl up when severed, hence when a vessel is torn, lacerated, or cut with a dull instrument which makes a more or less fimbriated edge, the fibres curl inwards and thereby close the opening and check the flow of blood. This is the reason why bleeding is more profuse from incised wounds than from others. When the vessel is small, even though cut with a sharp instrument, the contractile power of its coats is sufficient to close the orifice, but if the artery be one of considerable size this cannot take place as the force of the stream of blood

is sufficient to overcome the contractile efforts of the vessel, hence bleeding will continue and may become serious, even though the vessel be completely severed. In such cases the end of the severed artery from which blood is escaping should be searched for, drawn out with a pair of forceps and tied by a ligature. Carbolized silk or catgut makes the best ligature, but when these cannot be secured, a clean string or thread can be used. In many cases it is necessary to enlarge the wound in order to secure the end of the artery, and occasionally a wound is in such a position that it is dangerous or inexpedient, hence the hemorrhage must be checked by other means. If the wound be in a limb, or where the vessel runs close to a bone, and there is little muscular tissue external to it, bleeding can be checked by pressure applied to it between the wound and the heart if it be an artery, and between the wound and the extremity if it be a vein, by buckling a strap or applying a bandage tightly around the limb. This will of course check the circulation in all vessels enclosed in the tourniquet, hence the pressure must be left on only such time as is necessary to dress the wound properly, or until skilled assistance arrives. When such assistance cannot be secured, the tourniquet will check the bleeding until wound is cleansed and stitched, after which a pad can be placed over the stitches and a bandage applied moderately tight, to exert considerable pressure upon the pad without materially interfering with other vessels, and in a few hours a clot will have formed in the end of the severed vessel and there will seldom be danger of a recurrence of hemorrhage. When the severed vessel is deep seated in muscular tissue and cannot be taken up and ligatured, the wound must be plugged firmly with batting or other clean material, which is first rendered antiseptic by being saturated in a solution of one of the coal-tar antiseptics or carbolic acid, then packed firmly into the wound and maintained there by bandages or sutures. It should be left thus for eight to ten hours and the animal kept quiet as possible in the meantime, when, in most cases, a clot will have formed and the packing can be removed and the wound dressed. Venous bleeding is usually more easily controlled than arterial. If the vessel be small bleeding will usually stop spontaneously if the wound be exposed to the cold air, but if the vessels be large it is necessary to proceed as in arterial bleeding. Veins more superficially situated than arteries, they are usually more easily taken up and ligatured than arteries. We expect to discuss the further treatment of incised wounds in a future issue.

WHIP.

A Stallion's Best Assets.

Constitution and temperament are undoubtedly very important assets in the composition of a stallion or brood mare, and hence animals which are weakly, shy feeders, or bad tempered should be dealt with cautiously. If one of these failings becomes introduced into a strain it is difficult to get it out, and the value of the young stock will be considerably reduced.

The amateur may be reminded that it sometimes happens that a horse's stock of one sex are far superior to the other, and therefore if in the case of a colt-breeding sire there comes an indifferent filly foal, it does not follow that the owner should be disappointed with the horse.

It is well not to attach too much importance to mere looks, but to study back blood or breeding. It is well for a breeder when he takes a fancy to an untried stallion to make some inquiries as to whether the animal in question has a brother at the stud that has done well. This would be more with a view to test the abilities of the latter horse than the former one, as two full brothers may produce a totally different class of stock, the result, no doubt, of the get of one of them possessing a tendency to throw back to some undesirable ancestor. —Live Stock Journal.

LIVE STOCK.

Economizing on Cereals in Beef and Bacon Production.

At the Experimental Union, recently held in Guelph, Prof. G. E. Day gave expression to some facts in regard to live-stock feeding that should be seriously considered. If we must economize on cereals what shall we feed to cattle and hogs? This is answered in a general way by Prof. Day in his paper which follows:

Finishing Beef Cattle.

In normal times it is counted good business to give our beef cattle a good degree of finish before sending them to market. The higher price obtained for well-finished cattle has usually been profitable to the feeder.

At the present time, however, we are facing decidedly abnormal conditions. Statistics indicate that the world is facing a heavy shortage of wheat. If these statistics are correct it looks as though it might be necessary to use grains, heretofore employed almost exclusively for the feeding of animals, to help out the supply of wheat. As a matter of fact, investigations are in progress to determine the extent to which wheat flour may be adulterated with the flour of other cereals and still retain its palatability for human consumption.

If it becomes necessary, therefore, to utilize the coarser cereals for human food it must mean a shortening up of concentrates for fattening animals, and the question arises whether under present prospects we should not make a special effort to use the smallest possible amount of concentrates, and utilize, to the