

so long will the farmers be made, politically, into the meaner vessels. The farmer must turn potter."

The tendency in Ontario at the present time is in the direction indicated by Mr. Ager as the proper course of development, which really seems the most logical course, namely, industrial and commercial co-operation to begin with. We have the United Farmers' Co-operative Company, Ltd., already in a fair way of going, and with infinite possibilities of development. The Farmers' Clubs which are springing up all over the Province will, in large measure, furnish the element of combination which has in the past been too largely lacking, namely, social and informal class union.

Farmers' co-operation, both industrial and political, is on the way, and the price of milk and other farm products is going to be set on a new basis, in, let us believe, the not too distant future. The farmers are already doing what the banks, the manufacturers, the railways and the labor men have done. They are forming organizations and putting their leaders in charge, and presently the heads of these organizations will be authorized to speak for the farmers, politically as well as in the broader concerns of industry, in no uncertain tone of voice.

Cheer up! Don't sacrifice the cows—the price of milk is going up!
Northumberland Co., Ont. W. L. MARTIN.

Nature's Diary.

A. B. KLUGH, M.A.

When the days grow short, the nights long, and the trees are clothed in crimson and yellow, two dainty little visitors come to us from the great Northland. One of these, the Ruby-crowned Kinglet, pays us a visit of about a month's duration, while the Golden-crowned Kinglet prolongs its sojourn in Southern Ontario throughout the winter.

The Golden-crowned Kinglet is one of the smallest of North American birds. It is about four inches in length, greenish-gray above and whitish beneath. On the crown is a yellow patch, bordered by black lines, in the centre of which, in the male, there is a scarlet patch.

These little birds haunt the conifers and are examples of ceaseless activity, always flitting and fluttering, usually near the tips of the branches. Their call-note, which is the only sound they utter in autumn and winter, is a high "Scree-scree-scree," but in spring they have a cheerful, if not very musical song.

During the spring and fall migrations this species is abundant, it is fairly common in winter in Southwestern Ontario, and is a rare breeder in Southern and Central Ontario. It is a common summer resident in the Maritime Provinces and in the spruce woods of Northern Canada, and nests have been found in the White Mountains of New Hampshire, in Maine, New Brunswick and Massachusetts. We know most about the nesting habits of the Golden-crowned Kinglet from the account given by the noted ornithologist, Mr. Brewster, of the finding of three nests in the vicinity of Winchendon, Worcester County, Mass. These nests were found on June 13th, 16th and 17th in a piece of low woodland consisting principally of pines and spruces, and were located by the male singing in an undertone as he followed the female about while she collected nesting material. All three were placed in spruce trees, and at sixty, fifty and thirty feet respectively from the ground. Though found on the dates mentioned they were not collected until June 29th, when the first nest was found to have been deserted and the other two contained sets of nine eggs each. The first nest was built like that of the Baltimore Oriole, being at the end of drooping twigs; the second somewhat resembled the domicile of a Vireo; while the third was unique in location, being placed midway between two stout forks of a branch, one fork being above the other. The nest was attached by the sides and upper edge to the fork above, while its bottom rested on a bristling platform of stems ascending from the fork beneath. The material used in the construction of these nests was moss and lichens, and they were lined at the bottom with fine strips of inner bark and fine, black rootlets. Near the top were arranged numerous feathers of the Ruffed Grouse, Red Crossbill, Hermit Thrush and Oven-bird, with the quills pointing downwards, the tips rising slightly above the rim and arching inward over the cavity, thus forming a screen which partially concealed the eggs. In both nests, as the cavity was too small for the eggs to remain spread out, they were piled in two rows. The eggs varied in color from creamy-white to exceedingly deep cream color, and were sprinkled with markings of a pale brown, pretty evenly distributed over the entire surface, but thickest towards the larger end. In size they averaged .57 by .44 inches.

The Ruby-crowned Kinglet (*Regulus calendula*) like the preceding species is gregarious, and may be found in flocks among the evergreens during the migrations. They usually appear in the fall a week or so before the Golden-crowned, and for about a month are common, after which they disappear and are not seen again until about the beginning of April. From this time until early in May they are usually common and sometimes abundant. This species is about four and a half inches in length, greenish-gray above, whitish, usually tinged with yellow beneath, and has a scarlet patch on the crown. This patch can be elevated at will to form a crest, and when in that position gives the bird a most peculiar appearance,

as if it has a scarlet flower growing out of the top of its head. The song of the Ruby-crowned Kinglet is very sweet and is remarkably powerful for the size of the bird. It is a low-pitched warble ending in several high notes. In habits this species resembles its golden-crowned cousin, and it does equally good work in searching out minute insects from small crevices in the twigs and branches.

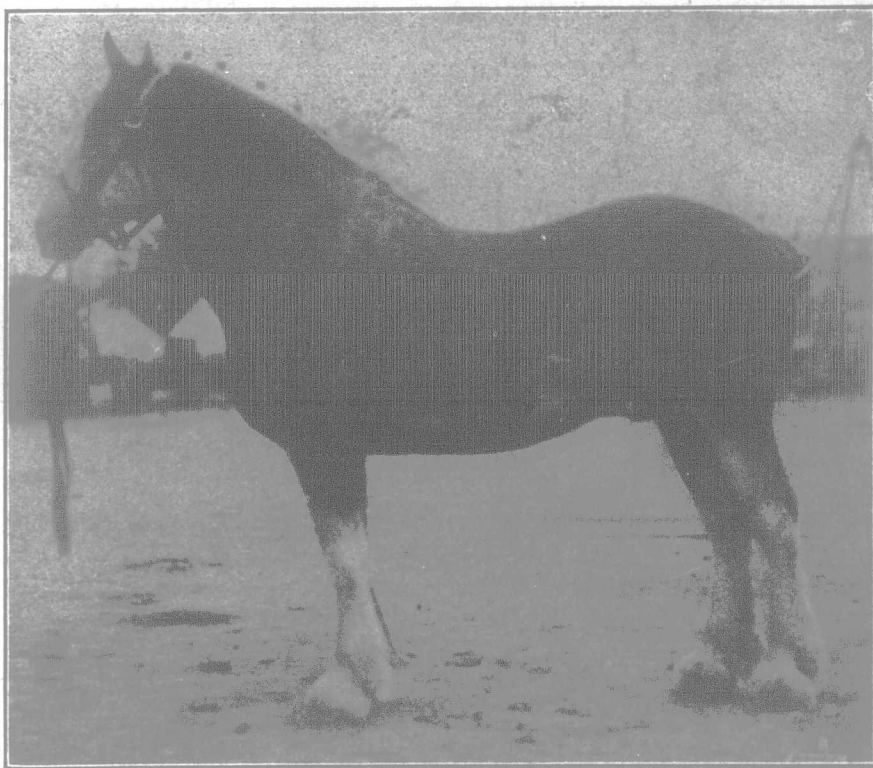
The Ruby-crown breeds sparingly along the northern border of the United States and with increasing frequency northward, being a common breeder around Hudson Bay and in the northerly portions of Western Canada. The nests are placed at various elevations in coniferous trees and are half-pensile. They are composed of moss and bark fibre, lined with feathers of various kinds. The eggs are from five to nine in number and are of a dull whitish or pale buff color, faintly spotted, chiefly on the larger end, with light brown.

These birds belong to the Sylviidae, a family of about 600 species, which contains the Old World warblers, and the far-famed Nightingale, and are, in fact, diminutive Thrushes.

THE HORSE.

Avoid Trouble With Scratches.

So far it has been a dry fall, but later on rains will likely be more frequent and mud more abundant. Mud and excessive moisture are conducive to scratches in horses, particularly when they are busy at the late fall work. Scratches are not an easy trouble to treat while the horses are being worked in the mud. They sometimes appear in the form of cracked heels or as sores on the fetlock or farther up. Some horses are predisposed to the trouble, particularly those with beefy legs. Overfeeding on heating feed some-



Herminius.

Second in aged stallion class at London. Owned by Brandon Bros., Forest, Ont.

times causes the break-out, and heat and cold operating alternately on the skin, a condition common in the fall of the year with its mud and dirt is a fertile cause. Many horse owners have an idea that washing a horse's legs when the animal comes in muddy at night is good practice, but this is liable to cause scratches. It is far better to allow the mud to dry on the legs and then by a vigorous brushing clean it off thoroughly. The use of warm water on the horse's legs as the cold weather approaches is bad practice, unless the teamster, and very few have time to do it, washes but one leg at a time and after washing rubs that leg thoroughly dry before starting another. Do not wash horses' legs, especially in cold weather.

As soon as the horse shows itchiness and soreness about the fetlock or heels purge with 6 to 10 drams aloes and 2 drams of ginger, according to size. It is wise to feed nothing but bran until purgation ceases. Give rest during the treatment and feed lightly on grain until put to work again. Follow the purgative with 3 drams of nitrate of potash twice daily for a week or ten days. Do not wash the sores with soap and water but keep them dry cleaned. In warm weather lotions are best, but in cold weather they dry up and harden the skin, giving it a tendency to crack, while oils and ointments have a more softening and antiseptic effect and tend to prevent cracking. Whichever is used it should be put on three or four times a day. No ointment is better than the oxide of zinc ointment, to which is added 20 drops of carbolic acid to the ounce. For a lotion to be used in the warmer weather "Whip" recommends one ounce each sulphate of zinc and acetate of lead and one-half ounce carbolic acid in a

pint of water. Sometimes where the horse is run down and the trouble is constitutional it is well to give one and one-half ounces Fowler's solution of arsenic twice daily for a week. Keep the horse healthy, the legs dry and clean and little trouble should be experienced with scratches this fall. Sometimes, where they get real bad and throw off an offensive odor, it is necessary to poultice with linseed meal and charcoal, but this only with very bad cases.

A Common Disease of Light Horses.

An observing person interested in horses cannot help but notice the large number of light and road horses which, when standing, point one foot in a restful posture indicating tenderness. If one takes the trouble to examine these he finds very often that the hoof is contracted at the heel and the foot is smaller than the healthy foot. We have had, during recent weeks, several questions on this trouble, which is known as navicular disease. The trouble is caused by inflammation being set up in the bone and the flexor tendon that passes over it. The cartilage covering the bone is, after a time, destroyed and a union of bone and tendon often occurs. The inflammatory action checks the growth of the hoof, causing it to contract and appear smaller than its neighbor. The heat causes a dryness and aids in the contraction. The soreness and pain from the inflammation cause lameness. Hard roads are responsible for the concussion which really causes the trouble. The weight of the animal coming down hard on the part during fast driving on a hard road or pavement incites the trouble. Some horses, too, are predisposed to the disease, due in some cases to faulty conformation, or to heredity or both. Mares with the trouble have been known to produce foals with a tendency towards the same disease. We remember a very useful driving mare which suffered for many years from the trouble on and off. Shoeing with bar shoes used to

help and standing her for a time in a puddle of wet clay seemed to allay the inflammation. She was taken from city streets and run on a good pasture for a summer and this with the puddled-clay treatment and judicious shoeing seemed to practically cure her, for the contraction ceased, and while her foot never again grew to be as large as its neighbor, she showed very little lameness after this treatment. However, once the disease is established there is very little likelihood of a complete cure being effected. Treatment is only effectual in the early stages of the disease, that is, it must be taken early if a cure results. As soon as alteration of the structure of bone and tendon occurs no cure can be effected. Rest is necessary, with the shoes removed and the heels lowered, and poultices of some kind do good at first. Then blister around the coronet to promote growth of horn. Use 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces of vaseline; clip the hair off the parts; rub well in once daily for two days and on the third day wash off and apply sweet oil. It will be necessary to clip the

hair off about two inches all around the hoof head and to tie the animal so that it cannot bite the parts. As soon as the oil is applied let loose in a box stall. The blister should be repeated in four weeks if necessary. In some cases the nerve has been removed, the operation being known as neurotomy. Unless the horse is practically useless neurotomy is inadvisable and the operation can only be done by a veterinarian. The front feet, in fact all feet, of all horses but particularly of light horses should be watched closely. If possible keep the driver out on grass during the summer months and if any tendency towards the disease is noticed be sure to pull the shoes, pare down the heels and stand the animal in puddled blue clay, and, if necessary, poultice the feet besides. Rest from work on the roads is necessary and no horse is likely to be cured by standing on a dry stable floor.

Prevent Fall Sore Shoulders.

Sore shoulders are almost as common, if not quite, in the fall of the year as in the spring. A certain percentage of the horses on most farms run to pasture the greater part of the summer and do very little work. Then they are brought in, in the fall and put to the strenuous work of plowing and cultivating, together with corn harvesting, root hauling and other rather tugging exercise. This fall, the ground is particularly dry in most sections and plowing will be rather hard on the shoulders. Prevention is better than cure, and teamsters should be on the look-out from the start to keep their horses' collars fitting properly and clean.