

similar to the adults, always feeding from the underneath side of the leaves.

This insect has a marked preference for the lower branches of the trees and in some cases the lower limbs have been entirely defoliated while the foliage of the upper limbs was comparatively uninjured.

The Cherry Leaf-beetle hibernates in the adult stage. The beetles emerge from their winter quarters in the late spring, and after feeding for some weeks and mating, the females go to the bases of the trees and deposit their eggs in the accumulation of rubbish. In something less than two weeks the eggs hatch. The larvae grow rapidly and in less than two weeks attain full growth, when they burrow a short distance into the ground, pass through their pupal stage, and in from two to three weeks after entering the ground, reappear as mature beetles. The beetles feed until cold weather compels them to seek shelter for the winter.

Experiments in controlling this insect made last year by Messrs. Cushman and Isley of the U. S. Bureau of Entomology showed that neither Paris green nor soap-carbolic acid solution used as sprays were effective, and the best spray was a mixture of forty per cent. nicotine sulphate applied with water at the rate of 1 to 600, with the addition of two pounds of soft soap to fifty gallons of the mixture. This spray killed all the beetles on the trees but did not prevent a new invasion of the orchard. Cushman and Isley also found that a small black and yellow Carabid beetle was a valuable predatory enemy of this insect.

June is often termed "The Month of Roses," and we have in Canada a great many species of wild roses which bloom in this month. One species which is common in Ontario belies the saying "there is no rose without a thorn" as *Rosa blanda* has no thorns or prickles of any kind. The flowers of most of our wild roses are very much alike in size, form and color, also in perfume, and the chief difference between the various species is in the number of leaflets, to a leaf, and the number, size, shape and arrangement of the prickles. Many people who love to gather these beautiful, sweet-scented flowers undoubtedly hold the opinion that in most species the number of prickles is the greatest possible, that they are of the best possible shape for getting into one's fingers and that they are arranged so that one cannot miss them. Certainly in *Rosa acicularis*, which is a very common species in Ontario, the stems are plentifully beset with straight, slender prickles.

One of the wild roses which is common along the roadside in many localities is a species introduced from Europe, the Sweet Brier, which has very fragrant leaves.

One of the prettiest roses I have come across is *Rosa gymno-carpa*, a species which is common on Vancouver Island, and in which the flowers are only about the size of a twenty-five cent piece, or of "two bits" as they would express it in its native home.

A plant which is now in full bloom in moist places along the margins of meadows is the Common Anemone, a plant with snow-white flowers and much-cut leaves. It belongs to the Ranunculaceae or Buttercup Family.

Independent Leadership.

One of the needs of countries and communities is wise and independent leadership. By leadership is meant that which inspires to service, the pursuit of ideals and efficiency—not grabbing a few offices and peddling patronage. The city of Cleveland, Ohio, has erected a noble monument by popular subscription to the memory of the late Mayor Tom L. Johnson, the educational value of whose life and words will long survive his civic achievements. On the base of the bronze the feeling and conviction of the people is thus expressed:

"He found us groping, leaderless and blind,
He left a city with a civic mind.

"He found us striving each his selfish part,
He left a city with a civic heart.

"Beyond his party and beyond his class
This man forsook the few to serve the mass."

THE HORSE.

Lameness in Horses—XXVII.

Rheumatic Lameness.

The word *rheumatism* has for a long time had a very comprehensive signification, serving to designate collectively all diseases of the organs of locomotion which are caused by cold or dampness. These diseases have in common the symptoms of more or less intense pain, which causes more or less pronounced troubles of locomotion. These pains may affect the muscles, tendons, tendonous sheaths, or the articular synovial membranes, and produce lesions upon these organs which are not easy to identify.

Rheumatic trouble causing lameness in horses is of two kinds, viz., *muscular rheumatism*, in which the muscles are involved, and *articular rheumatism*, in which the joints are the seat of trouble. These affections have in common only the pains and troubles of locomotion by which they are accompanied. In our patients their manifestations are more obscure, their forms more varied, and their diagnosis much more difficult than in man.

Muscular rheumatism is especially due to cold and dampness, cold winds and draughts, badly-kept

stables, damp pastures, sudden chilling of the overheated body, etc. A first attack appears to predispose to a return of the trouble.

Symptoms.—The symptoms are usually located in certain groups of muscles, in most cases those of the extremities. Generalized rheumatism is seldom seen. The patient usually assumes an abnormal, extended position; the affected region is stiff; in cases where the disease is located upon the extremities, he cannot rise without causing pain; he moves backwards with difficulty, taking very short steps, which do not compel him to move the joints; the movements are sometimes accompanied by crepitant sounds, which are produced in the articulations. The affected muscles are usually sensitive, enlarged and hard. In some cases the surrounding tissues are swollen.

The most noted phenomenon of rheumatism is the migratory character of the trouble, which frequently passes abruptly from one muscle to another. The marked tendency to a return of the disease, and a sudden improvement or complete disappearance of the symptoms after more or less prolonged exercise, are also indications of the trouble. It has been observed that the muscles of the shoulder are often involved—causing rheumatic lameness of the shoulder; and also the muscles of the lumbar region—causing rheumatic sprain of the back—lumbago—are often affected.



Common Anemone.

In rheumatic trouble of the shoulder the movements of the part are less extended and lower—in moving backwards the feet often being dragged upon the ground. The lameness becomes more marked when the animal ascends a hill, or upon soft ground; if the extensor muscles be involved the lameness increases when the patient turns short or wheels around.

Lumbago is marked by a stiffness of position, sensitiveness and weakness of the region of the loins, a dragging walk, difficulty in rising, and sometimes by an apparent partial paralysis of the hind quarters and a tendency to fall. In cases where the muscles in the neighborhood of the hip joint are involved, the gait is slow and dragging; the limb moves with difficulty and the step is short, flexion of the limb is abrupt, and somewhat spasmodic.

While cases of generalized rheumatism in the horse are rare, if such a case be met with, it will be noticed that there is a marked increase in temperature, acceleration of the pulse and also of respiration. Localized rheumatism is not accompanied by febrile symptoms, but the pulse is sometimes somewhat frequent and hard. In some cases muscular rheumatism develops into a chronic state; it then becomes a very obstinate trouble, hard to combat, and persists for a long time. Some cases of shoulder lameness, hip lameness, partial paralysis of the hind quarters, commonly called "sprained back" are caused by this form of affection.

Treatment.—The first principle in treatment is to, if possible, remove the cause. Keep the patient in a thoroughly dry, comfortable stall, excluded from drafts. Give a laxative of 4 to 6 drams aloes, or 1 to 1½ pints of raw linseed oil. The affected muscles should be well bathed with hot water frequently, and after bathing well rubbed with hot camphorated oil, after which they should be well wrapped with woolen clothes to keep them warm until the next bathing. It is doubtful whether much benefit results from the administration of drugs. Salicylic acid is supposed to have a specific effect in cases of rheumatism. In general practice salicylate of soda is preferable to salicylic acid, which irritates the mucous membrane of the digestive tract and often interferes with appetite. Of the salicylate of soda 4 to 6 drams may be given 3 or 4 times daily. As one attack tends to produce a marked liability to future attacks, horses that are predisposed should be well cared for, and, as far as possible, all exciting causes avoided.

WHIP.

Draft Horses of the Future.

According to an article recently published in the Live Stock Journal, Scottish farmers are breeding their Clydesdales with a little more bone, feather and substance than they once did, and English Shire breeders are endeavoring, for the foreign trade, to breed Shires with less hair and finer bone. The article will interest Canadian breeders of draft horses:

When one discusses the future of draft horse breeding there are naturally many who have differing ideas, and yet it is probable, in view of recent events, that these lines of thought will have to be changed.

Unfortunately fashion has entered into the sphere of horse-breeding just as much as in the case of other classes of stock, and oftentimes this has been detrimental to a breed. However, the present is a time when old ideas are changing rapidly, and those who put theory into practice are realising that extremes are undoubtedly bad.

To the ordinary farmer light horse breeding seems a thing of the past, because there is not so much money to be made out of them as in breeding heavy commercial animals. The premier draft horse of Britain is the Shire, a breed which is paying the rent for many a tenant-farmer, and which for many years past has been generously supported by landowners all over the country. The Shire up to the present has been able to hold its own against all comers, since it possesses size and weight, which are essential for moving big loads, but in the future other conditions may arise whereby other breeds will enter into fierce competition.

A good deal of information has been printed about the question of hair on the horse's legs, and in the breeding of draft horses perhaps nothing has been more discussed than this problem of feather. Whatever may be the advantages of a wealth of hair, whether it be a breed characteristic or not, the fact has got to be faced that it is not as popular as it used to be.

One has only to travel to certain places in the North of England, where the Shire and Clydesdale districts meet, and the reality of that fact is truly apparent. The Clydesdale has wonderfully improved as a draft horse, and those who went to extremes with regard to fineness of bone have found out that mistake. Every year the Clydesdale seems to be gradually pushing its way farther south, and this must mean that it is taking the place of the Shire.

The reason for this Clydesdale invasion is not far to seek, for farmers are coming to realize that clean-legged horses cause much less trouble, and in these days, when the scarcity of labor is so great, very hairy legs are apt to go wrong through inattention.

Another consideration to which attention will have to be paid is that of the foreign market, but the type of Shire that wins in London has an abundance of feather—in fact, they seem to have more hair than ever before, though this is not the kind the foreigner



Pedigreed Clydesdale Mare in Scotland.

This mare sold for \$970 recently.