

however, that the tariff causes an enhancement in prices of 20 per cent. on the average on goods manufactured in Canada. Anyone may challenge this assumption, but he must bring evidence to show where in it is inaccurate, and must establish what the price

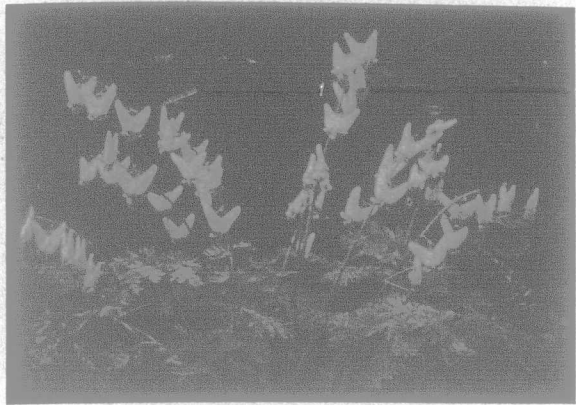


Fig. 1—White-hearts (*Dicentra encullaria*).

enhancement is. So far as the argument is concerned, however, its nature is not altered by any numerical change in this assumption.

The next question is: What is the domestic consumption of articles manufactured in Canada? The average production for the last five years, as has been shown already, may be taken as \$1,400,000,000 per annum. The value of Canadian manufactures exported during the last five years (making allowance for the recent jump due to munitions) may be taken as \$45,000,000 per annum (Canada Year Book, 1914—p. 262). Allow an export of \$50,000,000 per annum, and we have an average annual consumption of \$1,350,000,000 worth of goods manufactured in Canada. With a price enhancement of 20 per cent. there is, therefore, an indirect tax of \$270,000,000 paid by the Canadian consumers to the Canadian manufacturers. The situation is therefore as follows:

Tax which goes into Federal Treasury.....	\$ 92,000,000
Tax which goes into pockets of the protected manufacturers.....	270,000,000
Total tax due to the tariff on Canadian manufactures.....	362,000,000

This tax equals approximately \$50 per capita, or \$250 per annum per family of five. But the tariff tax on manufactured articles falls much more heavily upon farmers and their families than upon the average city resident. Both, it is true have to pay increased prices for clothing, tools, and household equipment, but in addition the farmer has to pay out annually large sums for farm implements, tools, vehicles, and machinery, which the average city worker escapes. A very conservative estimate would place the farmer as purchaser of fully twice as much in the way of manufactured articles as the average city worker. Assuming this figure of the total tax of \$362,000,000, agriculture bears two-thirds, or about \$240,000,000. This is divided between the 714,000 farmers (1911 Census), and figures out as close to \$350 per year per rural family. About one-quarter of this goes into the Federal treasury, and the other three-quarters, or approximately \$250 per year, goes into the pockets of the protected manufacturers. The total amount thus diverted from agriculture to manufacturing is, therefore, about \$180,000,000 per annum (for the 714,000 farmers).

Now, if the reader will refer to Study VIII, he will find Canadian manufacturing during 1910-1914 credited with a surplus profit of \$260,000,000 per annum, while Canadian agriculture faces a deficit of \$110,000,000 per annum. Transfer the \$180,000,000 above mentioned, from manufacturing to agriculture, and the situation is then:

Surplus profit in manufacturing.....	\$80,000,000
Surplus profit in agriculture.....	70,000,000

Comment is needless.

Brant Co., Ont.

W. C. GOOD.

Nature's Diary.

A. D. KLUUGH, M.A.

Two attractive plants now in bloom in our deciduous woods are the White-hearts and the Squirrel-corn. The leaves of these two species are exactly similar, but the difference in the flowers is clearly shown in our illustrations. The difference in the underground portions of these two species is even more marked than that of their flowers—those of the White-hearts consisting of clusters of little tubers, crowded together to form a bulb, while those of the Squirrel-corn consist of little rounded, yellow tubers resembling grains of corn. The names applied to these plants vary in different parts of the country. In some localities the White-hearts is called Dutchman's Breeches, in others it is termed Boys and Girls, while in some sections the White-hearts is called "Boys" and the Squirrel-corn termed "Girls."

The "Spirit of the Northern Lakes" has returned—the voice of the Loon rings out over their waters. No sound is more characteristic of the stretches of our north country with its numberless lakes, big and little, and of all imaginable shapes, than the cry of this bird. The Loon spends its life afloat, and in

swimming and diving it is not excelled by any bird. Its great webbed feet, with the powerful muscles on the lower leg, drive it through the water at a high rate of speed. It can dive "like a flash," and can swim under water for long distances. When pursued it instantly takes refuge beneath the surface, swims rapidly for some distance, thrusts only its head above the surface to take a breath, then dives again, and thus proceeds until it reaches a safe distance.

The Loon is a strong flier once it is on the wing, but it must have a considerable space in which to flap along the surface to enable it to rise. A friend told me of two Loons which were kept in a large tank which had vertical sides so that they could not walk out, and though the top of the tank was perfectly open and the Loon's wings were in perfect order they could not fly away. They would shoot from one end of the tank to the other in endeavoring to rise, but could not get a long enough "start" to enable them to do so.

This species makes its nest either on the shore just at the water's edge or sometimes constructs a little island of vegetation in shallow water to place the nest on. The nests on the shore are sometimes mere hollows in the sand, and sometimes are lined with water-plants. The eggs are usually two in number, though occasionally only one is laid. They are about the size of goose eggs, but somewhat nar-

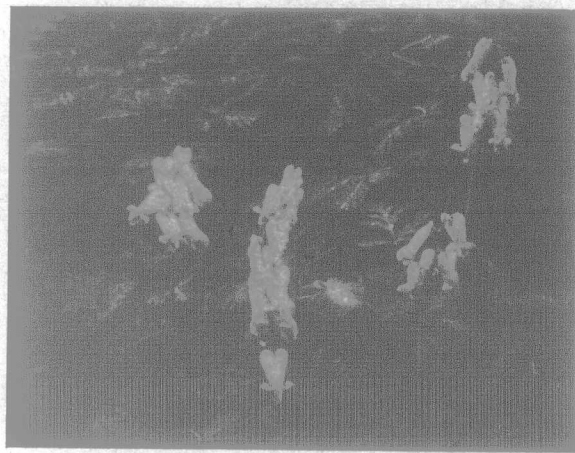


Fig. 2—Squirrel-corn (*Dicentra canadensis*).

rower, and are rich olive-brown, more or less marked with spots and lines of a darker color. The period of incubation is about a month.

The baby Loons are clothed in soft down, black above, white beneath. In a few hours they leave the nest, and are conducted out on to the lake by their parents. Here their youth is spent in alternately swimming and riding on their parents' backs. The parents feed them on bits of fish and aquatic insects until they are old enough to forage for themselves.

Loons are undoubtedly sociable birds, and are often seen in little parties of from three to eight playing a sort of game, half flying, half swimming, they dash over the smooth surface of the water at great speed, forward and back, again and again. Then



Longforth King Cole.

A four-year-old English Shire.

several chase one of the party, which dashes away and suddenly plunges beneath the surface. On reappearing it joins in the chase of another bird. Usually these games are accompanied by a great deal of noise.

The Loon has two main calls—the shrill, laughing cry, and the even louder "Oo-hooooo." This latter is often called its "rain-call," but like most "weather signs" does not really foretell what it is supposed to.

The food of the Loon consists largely of fish, though it also eats frogs, salamanders, leeches, and

fresh-water plants, and I found that one I examined recently had been eating a fresh-water Alga, *Cladophora glomerata*, a form of food not previously included in its published menu. While the Loon is often counted as being injurious to game and food fishes, its influence really is probably negligible, as it is certainly true that the best fishing is to be had on lakes where loons abound and men do not.

During the past winter the Evening Grosbeak broke all records for far eastern migration in Canada, as Mr. McIntosh, Provincial Entomologist of New Brunswick, reports that this species was seen in every county but one in that Province.

THE HORSE.

Lameness in Horses—XX.

Foot Punctures—Pricks in Shoeing.

A "gathered nail" may pierce any part of the sole or frog, but it is probably most frequently found in one of the commissures of the frog (the hollow between the frog and the bar on each side). If the seat of puncture be in one of the commissures about half way between the heel and the point of the frog, and be deep, there is danger of the nail having penetrated the bursa of the navicular joint. The symptoms usually are well marked. The horse goes suddenly lame, in many cases practically progressing on three legs, but in other cases the lameness is slight and in some cases, where the nail has not penetrated sufficiently deep to pierce the sensitive parts, no lameness is noticed, and no suspicion of the horse having "picked or gathered a nail" exists until discovered by the groom when cleaning out the foot at the next grooming. This fact impresses upon our minds the advisability of cleaning out the feet and looking for nails, stones, etc., at each grooming. In a case such as stated the presence of the nail would be detected and its extraction would prevent trouble, while if not noticed and extracted there would be danger of it penetrating farther if the animal stepped upon a stone or other hard substance, at the seat of puncture.

Treatment.—So soon as the horse is noticed going lame, the driver or rider should dismount and carefully examine the lame foot. In some cases the animal may have trodden upon a nail that is somewhat firmly fixed. The horse suddenly lifts his foot which pulls away from the nail but the horse will go lame all the same. In such a case the examiner, of course, will not see any nail, and on account of the elasticity of the horny sole, there will be no hole to mark the seat of puncture as the opening through the sole will have closed as soon as the foot was drawn away from the nail. In some cases there will be a few drops of blood to indicate the trouble, but where this is not the case the examiner is at a loss to know definitely what caused lameness. In these cases the horse may or may not continue to go lame at the time. When the nail, in such cases, has been clean and has not penetrated sufficiently deep to draw blood no untoward results are likely to follow, but if foreign matter has been left in the wound or blood has been drawn, lameness will very probably become evident in the course of a few days. When the nail be present it must be extracted.

This can sometimes be done with the fingers, but in many cases it is too firmly fixed and a pincers or claw hammer is necessary to remove it. If the examiner has not the necessary means of removal he should allow the horse to stand until he can procure it, as, if he drives or rides, or leads him, it is probable that the nail will be forced farther in, hence aggravate matters. If no blood appears when the nail is extracted and the horse goes sound it is probable that no further treatment will be necessary, but if there be blood, or if from the evident depth of puncture, the sensitive parts have been wounded, further treatment will be necessary. Even though no blood should appear, if foreign matter has been introduced or the sensitive parts wounded, pus will form and cause lameness and an opening will have to be made through the sole for its escape. Hence the seat of puncture should be carefully noted and after the horse has reached the stable, his shoe should be removed and with a shoeing-smith's knife a free opening made

through the sole to allow escape of clotted blood and other foreign matter. The wound should be thoroughly washed with an antiseptic as a five per cent. solution of carbolic acid or one of the coal-tar antiseptics, and either a poultice of warm linseed meal applied, or the wound filled with a dry dressing, as one part iodoform to four parts boracic acid, and a boot or wrapping put on to prevent entrance of foreign matter. The writer prefers the dry dressing. The wound should be dressed in this manner twice daily until lameness disappears