

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

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man" is now a respectable citizen who toils or labors in his country's service.

As we watch the automobiles glide along some busy street, or some well-built country road, we try to visualize the conditions that make so much pleasure and comfort possible. We see the inside of factories and wonder if the young girls and women toiling there are receiving all their labor is worth to their employers. The mind journeys down into the mines, into the forests, through the mills and behind the counters; here labor is essential, but is the raw material paid for according to its value? We see the farmer and his family toiling long hours for a living and perhaps enough to carry him over a period of inactivity before the end comes. Away in France and Flanders, too, we see millions of men fighting for their country; are they being amply rewarded? The mind journeys on but the questions in their entirety remain unanswered. One thing is apparent, however, that the greater the pomp and luxury of a few, the harder will be the conditions and trials of many. If some sister Order to the Anti-Loafing Law were enacted that would guarantee a distribution of what the country has to give in proportion to the service which each and every one renders, the spirit and morale of our people would increase one hundred per cent. When the rich deride and the proud disdain, the community is not healthy. Antagonism of class towards class breeds dissension and a breach of friendship which makes the road hard to travel. When all toil and spin, and reap according to the energy they put into the work there will be less class distinction and a more friendly feeling.

Plant Corn.

The earliness of the seedling in most corn-growing districts of Ontario has left a breathing spell in which to prepare land for corn. Farmers should not slacken up on this crop for it is one that entails very little hand labor, except at harvest time, and when once in the silo it is stored away in small space and in splendid condition to feed. The seed, outside of the favored counties is not, of course, all that could be desired, but it should mature sufficiently for silage purposes. Sunlight, air and moisture are its chief stimulants and, while it draws heavily on these, it still requires something of the soil on which it grows. It pays to manure the

corn crop and cultivate it well. A reasonable amount of fertility and plenty of cultivation are the chief factors. The season is now getting late for any crop other than corn except buckwheat, which might work in advantageously under some circumstances. Where help is not available farmers will not go in strongly for turnips, but some succulent feed is necessary and ensiled corn is one of the best. Plant corn.

in the different classes. A work that is worth doing at all is worth doing well. If the exhibitors are not informed as to the weakness of their entries, so they may avoid those same mistakes the next year, then the value of the school fair is largely lost. Better to have fewer classes and have time for judges to give reasons for placings, than to so crowd the afternoon programme with events as to make the giving of reasons impossible.

School Fairs.

In 1909 the idea of holding a School Fair was conceived by the District Representative of Waterloo County, and the success of the undertaking was such that the work has been carried to practically every county in the Province, and has been productive of much good. While the scheme of interesting farm boys and girls in better crops, stock, and poultry, by giving them a setting of eggs, a few pounds of grain, or a package of flower seed, to be looked after at home, and the product exhibited at a fair in the fall was ridiculed by many adults, school fairs under the supervision of the District Representatives have gone on, and as a result selected seed is sown, better poultry kept, and more flowers are grown in many localities. Besides, the boys and girls have been taught to study the why of things pertaining to the growth of plants, and from caring for their small plots have become interested in the more extensive work of the farm.

In 1917, three hundred and two fairs were held in Ontario, which included 2,825 schools; a total of 59,329 plots were grown at home, and 68,862 pupils took part in the fairs. In 1917 one hundred and thirty-eight bushels of selected seed oats, 1,211 bushels of potatoes, 3,695 packages of turnip seed, 5,850 packages of mangel seed, nearly 16,000 packages of vegetable seed, 15,000 packages of various kinds of flower seeds, and 9,284



The Cinnamon Fern.
Showing fertile and sterile fronds.

dozen eggs were among the materials distributed, which gives some idea of the demand for seed and eggs. All pupils do not have good success with their crops or chickens, nor do all take an interest and profit by their experience, but if only a small percentage did so the work would be worth while. From the one pound of oats or five pounds of potatoes secured at the school, some boys and girls have now sufficient seed to sow the cropping acreage of the home farm. An interest in poultry and flowers has also been created in many homes as a result of the school fair. Parents, as well as pupils, have become interested and co-operate with those in charge of the work to make the fair of the greatest educational value.

It has happened on one or two occasions that the seed distributed was not of the highest quality, or else reached the pupils too late for planting to obtain the best results. Such is regrettable, and, while the intention is to furnish seed of first quality, a little more care should be exercised to see that such is always the case. The pupil immediately loses interest if the samples of oats, potatoes, etc., are of inferior quality. It must be remembered that most boys and girls have ideas of what good seed should look like, and really expect something extra when it comes from the Department. Poor seed tends to shatter the pupils' faith, and makes it difficult to interest them in better crops. Parents should take an interest in the work, and encourage the boys and girls to look after their plots in the most approved manner, and to select a choice sample for the fair. Parents are oftentimes to blame for their children not taking an interest in things pertaining to agriculture. Instead of giving a word of praise for good work done, or a bit of advice relative to the care of the plots, the whole idea is more or less ridiculed. This should not be, and the man or woman who makes fun of the effort made by school children is doing the cause of agriculture a great harm.

By all means give the boys and girls the best stock to look after and the best seed to plant. Encourage them at every turn. Give them credit for what they do, and let the work be as educative as possible, at home, at school and at the fair. There has been a tendency to tamper with the fairs of too rapidly. Visitors had scarcely time to examine the exhibits, and the pupils had no opportunity of hearing reasons for the placings

Nature's Diary.

A. B. KLUGH, M. A.

The earliest of all the ferns to come into fruit is the Cinnamon Fern, *Osmunda Cinnamomea*. This species is very common in eastern Canada, ranging from the Atlantic coast to Georgian Bay. It is an inhabitant of damp places such as shaded swamps, wet open woodlands, and the banks of little streams which wind their way through the woods.

The young croziers or "fiddle-heads" of this species begin to show above ground very early in the spring, and they may be distinguished from those of other species of ferns by the dense coat of silvery-white wool in which they are clad. As the spring advances and they expand into fronds the woolly covering turns to a tawny hue and gradually falls away, although vestiges of it remain throughout the summer, scattered along the stipe, (stem) and in little bunches at the base of each pinna (leaflet).

The fertile fronds are the first to appear, but long before they have reached maturity the sterile have sprung up and overtopped them. An examination of the crown when the fronds are uncoiling shows that the fertile and sterile fronds belong to different circles and that the fertile fronds really belong to the outer circle, though at maturity they are surrounded by the sterile ones. This exchange in position is effected by a sharp bend outward at the base of the sterile frond.

Only one crop of fronds is produced in a year, unless the first is injured or destroyed.

When full grown the sterile fronds are sometimes six feet in height, with stipes a foot in length, and they spread out in circular crowns like shuttlecocks or great green vases.

The fertile fronds are entirely unlike the sterile ones. They are stiff, club-like, green when young and cinnamon-colored when mature. If they are examined closely it will be seen that the branching of the fertile fronds is in reality the same as that of the sterile fronds, but the green, expanded leafy part of the pinna is replaced by groups of spore-cases. In early June the spores of the Cinnamon Fern are shed in myriads, the slightest touch sufficing to shake down a sage-green cloud of spores. At this stage a view of portion of a fruiting pinna through a lens reveals a beautiful sight. The multitudes of little spherical spore-cases vary in color from the deep green of the unopened spheres to the sulphur yellow or rich brown of the older empty ones, and many may be seen partly open disclosing the spores within. The spores are a beautiful shade of green, due to the amount of chlorophyll they contain, and in this respect they differ from the spores of most ferns which are brownish in color. It is probably on account of the presence of chlorophyll, which is a rather perishable compound, that the spores of this species, and in fact of all the species of *Osmunda*, must germinate within a few days after they are shed if they are to germinate at all. As soon as the spores are shed the fertile fronds wither and have usually disappeared by the first of July.

The rootstock of the Cinnamon Fern is larger than that of any other North American fern. It is shaggy with the persistent bases of the fronds of other years, and creeps along just beneath the surface of the soil. The strong wiry roots are given off on all sides, and many are obliged to penetrate the bases of one or more stipes before entering the earth. One end of the rootstock is annually renewed by fresh crowns of fronds and the other as constantly dies. If no injury happens to the crown, there seems to be nothing to prevent a plant of this species from living for centuries. That some are very old an examination of the rootstock will show.

Occasionally in a clump of this species one may find a frond which is half way between fertile and sterile. The fertile portion may be next the apex, near the base, at the middle of the frond, or fertile and sterile pinnae may be intermingled. This peculiarity seems to be caused by some injury to the rootstock which has obliged the plant to turn the partly formed fertile fronds into leaves so as to take part in the manufacture of food.

The spring migration is now at its height. Every day brings more feathered travellers from the south. Every day sees some species pass on to their more northerly breeding grounds. The bird student is on the alert to identify these passing migrants, these species which are to be seen only for a few days in the spring, and again for a few days in the fall, in his locality. There are several species among these migrants which are listed as "rare" in every locality in which any work on birds has been done—species which seem to be common nowhere and which are either comparatively recently evolved species which have not yet increased to a maximum, or species which are waning in numbers. Others are rare in particular localities but are common in other parts of the country. It is the hope of meeting with rarities which keeps up the interest of many students of birds, but I would draw the attention of bird students to the fact that more real scientific interest attaches to some new fact concerning some common species, some intimate study of its way of living, than to a glimpse of a rarity.