The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

Published weekly by THE WILLIAM WELD COMPANY (Limited).

JOHN WELD, Manager. Agents for "The Farmer's Advocate and Home Journal," Winnipeg, Man.

THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.

It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers of any publication in Canada.

any publication in Canada.

TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries, 12s. in advance.

ADVERTISING RATES.—25 cents per line, agate, flat.

Live-stock advertising rates given on application.

THE FARMER'S ADVOCATE is sent to subscribers until the explicit order is received for its discontinuance. All payment of arrearages must be made as required by law.

THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid, and their paper ordered to be discontinued.

ordered to be discontinued.

REMITTANCES should be made direct to us, either by Money Order, Postal Note, Express Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.

THE DATE ON YOUR LABEL shows to what time your

subscription is paid.

ANONYMOUS communications will receive no attention. In every case the "Full Name and Post Office Address Must be WHEN A REPLY BY MAIL IS REQUIRED to Urgent Veterinary or Legal Enquiries, \$1.00 must be enclosed. LETTERS intended for publication should be written on one

side of the paper only.

CHANGE OF ADDRESS.—Subscribers when ordering a change of address should give the old as well as the new P.O.

change of address should give the old as well as the new P.O. address.

WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider *aluable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine." Descriptions of New Grains, Roots or Vegetables not generally known. Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

ADDRESSES OF CORRESPONDENTS ARE CONSIDERED AS CONFIDENTIAL and will not be forwarded. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

ADDRESS—THE FARMER'S ADVOCATE, or THE WILLIAM WELD COMPANY (Limited), London, Canada.

to it ourselves. More than that, it is bad economics from the farmer's standpoint, for the world's markets set the price on our wheat, our cattle, our hogs, and most everything we have to sell. The manufacturer bases the price for his commodities on actual costs, but the farmer's interests are not so well safeguarded. The price we get for farm commodities is decided not by what we produce alone, but by a general summing up of what all the producing countries of the earth have to offer from their surplus stores.

In some communities baseball clubs have been formed, leagues have been organized, and a series of games provided for. This is to be highly commended. It gives the young folk an opportunity to engage in wholesome, manly sport, while old and young look on and enjoy it. Where this has been the custom, the whole community would turn out to see the game and support the boys, without much loss of time. There should be sport and games organized in every community, but supporting them is vastly different from a set half-holiday with nothing definite in view

Charity Begins at Home.

BY SANDY FRASER.

One o' the proverbs that I have heard noo an' again, ever since I was a youngster, is the one that says that "Charity begins at home." It's the handiest proverb for some people that ever was written. It lets them oot from under a lot o' obligations and saves them conseederable money in the course o' a life-time. When the meenister asks them for a contribution for Foreign Missions they want to ken what's the matter wi' attending tae Home Missions first. And when the collection is being taken up for Home Missions they gie it as their opinion that the needs o' their ain particular church ought to be looked after, since the preacher's salary is behind, and so on. Then when they are asked to make up this shortage and help their church oot o' a hole, they remind themselves o' the fact that "charity beings at home," and their conscience permits them to run that five-dollar bill awa' in the box in the sideboard drawer, instead o' into the empty pocket o' their meenister. 1t's human nature, I suppose, or one phase o' it, But it's that saying about charity and the

in their policy o' lookin' oot for number one and lettin the rest o' the warld shift for themselves, as best they can.

We've had an example o' this tendency not sae far frae hame, within the last couple or three weeks. I'm referrin' tae the salary boost that was proposed for oor members o' the Legislature at Toronto. Whaever chap sprung that scheme was a believer in the auld proverb, Na doot it was at his mither's knee that I'm thinkin.' he learned that "charity begins at home." Onyway there is little doot but that he thought he would meet na opposition in gettin' a Bill o' that nature through the Legislature. But for once in a thousand years condections weren't favorable for the law-making salary-booster. He'd forgotten that a bunch o' kind o' half-decent farmers had managed to get control o' the Government in this Province last fall, and that they had a leader chap by the name o' Drury. It was this wee fact that upset a' his calculations.

When the Bill was first brought up the press o' the auld political parties juist took it for granted that it wad go through. No ither outcome had ever been heard of. Here's a wee bit o' an editorial frae one o' these papers: "Those persons in Ontario who talked and hoped for reform and economy under an agricultural administration are being sadly disappointed, for the calls on the treasury are loud and insistent. Premier Drury in his first enthusiasm, stated that the Prime Minister's salary was too high by \$3,000, for which remark he was praised on the one hand and laughed at on the other. Now there is a reaction from such a lofty plane, on the part of the legislators, for the whips of the three parties are urging that the sessional allowance be raised from \$1,400 to \$2,500. With such unanimous support the raise should come, and then if the two thousand five hundred is not sufficient a double session might be held. Legislators are able to look out for themselves as well as their constituencies.

The editor who wrote that last sentence was pretty sure that the auld unwritten law o' "every man for him-self" was still in force. He will be sittin' up, these days, an' rubbin' his eyes and thinkin', maybe, it was all a dream

But the fact that these salary-boosters failed in their first sttempt won't hinder them in making a second, Watch oot for them next session. They're like an auld French-Canadian representative o' Prescott County doon here, who was elected tae the House o' Commons at Ottawa a guid mony years back. One o' his opponents asked him, the day after the election, what he was "going to Ottawa for, anyway" "I'm goin'," he replied, for my t'ousand dollar.

The idea o' workin' for the interests o' his county or country had never bothered him ony mair than it has some o' those that we hae been sending to Ottawa an' Toronto since. But he was less afraid o' comin' oot wi' the truth than they are noo-a-days. Like the chap that was asked what he did durin' the Great War. "Weel", he replied, "I did mair than a guid mony ither men I was acquainted wi'; I lived through it.

But, as I was sayin', there's a bunch o' these fellows that are makin' themselves comfortable in Queen's Park that really think they are no' gettin' pay enough for takin' a couple or three months holiday. For it's naething less or more. All the majority o' them ever do is to vote. And they don't even have to think about how to do that. They appoint a man, at the beginnin' o' the session, to dae their thinkin' for them.

I'm no' against payin' the Premier an' the ither Cabinet Ministers guid fair wages. They're on the job maist o' the time and, na doot, earn their money. But gin the rest o' the bunch dinna like their job an' the wages that gae with it, why don't they gae oot on strike like men an' let us elect ithers to tak' their places. They knew what the pay was when they were tryin' their best to get us to send them up to Toronto last fall and gin they don't like it noo I guess we all ken where there's men waitin' to step intae their shoes.

But they've certainly got their nerve alang wi' them when they propose to hand over to themselves a greater proportion o' the taxes they have levied on the rest o' us. And that wi'oot sae much as a "by your leave." I dinna ken anither job on the face o' the earth where the servants can raise their ain wages until they hae at least informed their master o' their intentions and given them some chance to say whether they like the proposition or not. I'm thinkin' better than ever o' Premier Drury for not lettin' these chaps get their fingers intae the provincial money-box. Let him stick tae that policy and a guid mony o' us will be beginnin' tae think that, whether the farmers ken little or much, the're no' that slow when it comes tae pickin' a Premier.

We've had a guid mony sermons on the virtues of economy from oor different Governments in the course of the past few years and it's a'richt too, gin they set us the example as weel. But when a mon starts talkin' tae me aboot the necessity o' workin' harder an' exercisin' greater economy, and at the same time tries tae get his hand intae my pocket to relieve me o' the results of the habits o' economy that I already possess, I'm thinl in' it shouldna be oot o' the way to come tae some sort o' an undertanding wi' him sae that he might be brought to see the error o' his ways. Inconsistency is another o' them lang words, but gin the meaning o' it were made clear tae some o' these chaps they wad be surprised how weel it fitted their case.

Pastures have been very backward this spring and live stock have kept them down. Make ample provision for the summer and autumn months when lean pastures may again be expected.

Nature's Diary.

BY A. BROOKER KLUGH, M. V.

The ferns are now uncoiling their feathery fronds and in wood and swamp these half-uncoiled fronds stand like croziers. All the true ferns, that is the species of the family Polypodiaceae, are alike in this respect, that their leaves are coiled in the bud and "unwind" in unfolding. In some cases these new fronds are produced from a crown which still bears evergreen leaves of last year's growth, in other cases all the fronds are produced from year to year, and only the crown or the rootstock persists.

The manner in which ferns reproduce was a mystery

for ages. It was thought that they must produce seeds like flowering plants, but as nobody had ever detected either flowers or seed it was supposed that the seed was invisible. Since this was thought to be the case it was imagined that the possession of this seed would confer the gift of invisibility, and Shakespeare is only reflecting

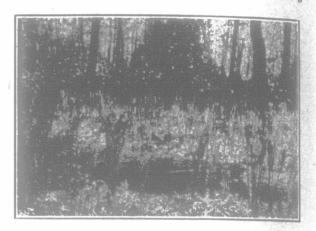


Fig. 1-Croziers of the Ostrich Fern.

this common belief of his time when he says, "We have the receipt of fern seed; we walk invisible." It was not until 1648 that the sporangia were noticed and the spores themselves were not detected until 1669, while t was not until 1808 that the full life-history of a fern was worked out

The life-cycle of a fern, which may be followed by anyone with the aid of a hand-lens, is as follows:-

On the back of the frond in most species, or in groups on special fronds in such species as the Ostrich Fern, Sensitive Fern and the Cinnamon and Royal Ferns, are little groups of spore-cases. These groups are known as sori or fruit-dots. Figure 2 shows a section through a sorus, and Figure 3 shows one of the sporecases or sporangia. In most ferns the sori have a covering, called the indusium, and the shape of the sorus, and consequently of the indusium, varies greatly in the different species. In the Wood Ferns (Aspidium is kidney-shaped, in the Spleen-worts it is long and either straight or curved, in the Bracken they form a raised line round the margin of the frond, and so on.

When the spores are mature the sporangium ruptures, at the point shown by the break in Figure 3, half of the sporangium bends slowly backwards and then flips suddenly forwards, scattering the spores



Fig. 2-Sorus, or Fruit Fig. 4—Prothallia of a

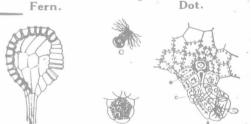


Fig. 3-A Sporangium. Fig. 5-A Archegonium. With egg and canal. Showing point of rupture, much enlarged.

When a spore germinates it gives rise to a small, flat, thin, green, heart-shaped body known as the prothallium. These prothallia may be found in large numbers under ferns in midsummer, the best place to look for them being on the surface of moist, rotten logs, as on account of their minute size they are difficult to The prothallium is attached to its detect on the soil. substratum by hair-like rhizoids, by means of which it obtains the water necessary for its growth. At its pointed end it bears the male organs, known as antheridia, and at the notched end the female organs, called archegonia. A prothallium with these organs is shown at 1 in Figure 4. The male organs contain little ciliated bodies termed antherozoids, which enter the canal of the archegonia and fertilize the egg at the bottom of this canal. Figure 5 shows these structures under high magnification. From this fertilized egg the young fern plant develops, the little frond coming up it the notched end of the prothallium as shown at 2 in

MAY 27, 1920

Sterility, eit

uncommon in 1 or organic cause Of course, her monstrosites and we refer to mare: Mares that have years, and ther nfecund, or mai then allowed to again, will ofte in these cases is lost their pow Nothing can b organs. Chang organs. ary and in some in most cases acclimatized, in also may cause by changing t over-fed mares as those in m the case with v these causes of vicious mares d those of a quiet, that, with mar even sufficient is favorable to his mare for a her to rest for of the generativ uterus or vag such diseases be nent sterility, a they may bt ently interfere v mare's comfort eral usefulnes fact, such disea often present a circum only that lead to picion of their ence is the failure to co Irregular oestr curring either quently, or at or irregular ir indicate diseas ovaries. In son of diseased ova animal show longed or con oestrum. Suc male is called phomaniac; beases of the organs of ger and in som even of the sufficient to conception, present and same time, the of oestrum as irregular inter

especially in a of the passage os uteri) duri prevents the artificially in be performed popular meth syringe espec from dealers is immersed cent. solution temperature is sterilized head of the then perform containing th in order to ret of the seme into the uter hand and a directs the t into the uteri to impregnat of copulation the most cor of the os uter to conceive, by inserting until the fing can be read but where th forcibly dilat some cases t instrument es

used. There

nothing abnor

be detected, e

that treatmen

Doubtless

successful.