GENTLEMEN, -Believing that many influential gentlemen among you are not fully aware of the advantages of the Canadian Agricultural Emporium, established by me; nor of the advantages of the FARM-ER'S ADVOCATE, I purpose making a few remarks in reference to them.

Eight years ago we first undertook the task of establishing the Agricultural Emporium, seeing that such an institution would be of much benefit to the country, as we had no place where seed-grain was imported and tested, and no regular established depot where a person could procure or know where to procure thoroughbred stock, or the latest-improved implements. We devoted our time and means to carry out the plans, and found it necessary to establish a paper. We gave it the name of the FARMER'S ADVOCATE, and took as our motto, "Persevere and Succeed." We believe no one who has been a constant reader of our journal but is perfectly satisfied that it has been conducted true to its pame, and has fought for the interest of the farmer entirely independent of party politics. The ADVOCATE has fearelessly attacked any plans, men, or things that have tended against the interest of the farmer in general, irrespective of party, position or locality. We exposed the old Board of Agriculture, and condemned it when they were strong. We have endeavored to strengthen the new Board of Agriculture when they have been weak. We have expended a large amount of money to improve the stock and seed of the country, and the published reports from various parts show that the wheat oats, peas, potatoes and corn sent out from the Emporium has been of much advantage to the parts of the country where they have been sent.

We have not done as much good as we might have done, as our means were small in comparison with the greatness of the undertaking. We have in no way been aided by the public funds; but our support has been entirely from what we would make from the business and our private means. The undertaking was commenced expecting the controllers of the public agricultural affairs would countenance, and at least throw no obstruction in the way of independent progress. But we much regret to inform you that the Minister of Agriculture and his cliques-most particularly in this city as well as at the Legislature halls-have done their utmost to trample out the undertaking, so as to take up our plans, and fill offices with already select favorites, and to enchain and trample down independent agricultural enterprise, and that until fair promises were being made to aid the undertaking.

The vilest plots were being planned to overthrow the FARMER'S ADVOCATE and establish an experimental and test farm themselves.

Do you believe the government would have dreamed of establishing such an institution had we not commenced it? Why have they put this quadruple tax on agricultural papers, to the effect that any agricultural journal published in Ontacio must be prepaid by the publisher at the rate of cent? Why did the government start the hives; Pollen, or bee bread, from flowers, and is every way as convenient a long some fifty or sixty years ago, a blacksmith

existence? Why would they not not allow seed to pass through the post office without being compelled to be prepaid at for mixing with the food for their young four times the rate that papers may be sent, for no other reason than to curtail the influence and freedom of us farmers.

Our dependence is on our subscription list, our advertising list, and on sales we can make. Our importing and testing seeds has been an expensive undertaking. The paper will be found of use, pleasure and profit. Each gentlemen who cultivates or owns land might be benefitted by it. It will be found both amusing and instructive to the young.

Perhaps you might order a few numbers for your Agricultural Societies, or a few for each school section, and might use your influence to introduce our paper and make known our plans in your vicinity.

We subjoin the following commendations, to which perhaps you might add another to our list of approbatory references. Remaining yours, respectfully, W. WELD.

## Facts about the Honey Bee.

There are three classes of bees in a hive the Worker, Queen and Drone.

Queens are raised by peculiar food and treatment, from eggs that would otherwise produce workers.

The worker is an undeveloped female.-Workers in the absence of the queen sometimes lay eggs. These invariably produce

The queen lives from two to five years. The worker from two to three months in the working season, and from six to eight during the season of rest.

The queen is perfected in fifteen or sixteen days from the egg, the worker in twenty to twenty-one, and the drone in twenty-four.

cell, and is capable of laying from two to three thousand eggs in a day.

The impregnation of the queen always takes place outside the hive, and on the wing, and generally the fourth or fifth day after leaving the cell. Excepting in rare cases, one impregnation answers for life. The drone she has mated with dies immediately.

The eggs of an unimpregnated queen produce nothing but drones; and it is generally conceded that impregnation does not affect the drone progeny, consequently the male progeny of a pure Italian queen is pure without regard to the drone she has mated with.

The queen and worker are provided with stings; but while the latter will use it upon any provocation, the former will only use it on her own rank. The drones have no sting.

One queen, as a rule, is all that is tolerated in a hive; but previous to throwing off "after swarms," two or more queens are permitted in the same hive for a short time; but the extra ones are soon dispo-In case of superseding a queen, sed of. the old one is preserved until the new one is fitted to take her place. Queens have a deadly hatred of each other, and will destroy if permitted all queen larve or cells in the hive, and will fight each other until there is but one living one left.

Bees gather three kinds of products,

Ontario Farm except to trample us out of for feeding their young and themselves; and Honey, which constitutes the main food of the hive. Water is also carried into the hive during the breeding season, salt is also made use of for the same purpose.

Wax, like fat, is an animal product, and is secreted by the bees in thin scales from the underside of the body. While doing this they consume large quantities of honey—from fifteen to twenty pounds for every pound of wax secreted.

A frightened bee, or one filled with honey is not disposed to sting.

A good swarm contains about twenty thousand bees.

A strong or medium hive, with a good living queen, is never seriously troubled with the moth worm; but a hive without a queen, or the means of raising one, is sure to be taken by them.

Bees recognize each other by their scent. The first one or two weeks of the young bee's life is spent inside the hive as a nurse or wax worker.

The range of a bee's flight for food is generally within two or three miles; much greater range is of but little benefit to them.—Selected.

## Orchard Grass.

From an essay by L. F. Allen, Esq., of Black Rock, New York, in the Tribune, we make the following extract:

We have grown this grass constantlynot in large quantities to be sure-for the past 30 years, and know its value for the various purposes we have mentioned; but for soiling stock in the summer season we consider its qualities the most eminent.-A few will be stated:

First: It starts early in the spring, with a broad oat-like leaf, growing rapidly, and arriving at its highest condition of excellence when in early bloom, which is about the time of the blossoming of the common red clover, and, if made into hay, fit to cut at the same time. Yet, for soiling purposes, it may be cut some days or even some weeks earlier. It is better, however, The queen usually commences laying for the full amount of nutriment it will from seven to twelve days after leaving the afford, to wait until the flower is fairly developed. Its qualities are sweet, nutri tious, abundant in production, tall as ordinary oats in growth, and a heavy burden to the area on which it is produced. If suffered to stand long enough to mature its seed, the stalk fiber becomes hardy, harsh and unpalatable to stock; therefore it must be cut before it arrives at its seedripening condition, as is the case with most other grasses for dry for ge purposes. No grass which we have seen grown has yielded so heavy swath as this, nor one from which so much cattle food to the acre can grown, apart from Lucerne or Trefoil. which our American climates will not consecutively, year after year produce. No grass, not even red clover, springs up so rapidly after cutting, as this. We have known it in showery weather start fully three inches within a week after cutting and so continue for repeated cuttings throughout the season, retaining its verdure into the latest frosts, and then affording a pasturage sweet and nutritious, inviting to all kinds of farm stock inclined

Second: As hay, its quality is good, when cut in its early flower, but inferior when gone to seed, attaining then a woody fiber, as before remarked, yet, when cut and steamed, equal in nutritious quality to other late-cut grasses. The steaming or cooking process reduces its fibrous stalk to a comperative pulp, rendering it palatable to the state of animals, and autritious uses. As hay, it cures readily;

fodder as any other. Such are its qualities for hay.

Third: As soiling stock through the summer months is now coming rapidly into practice, we can do no better service to the farmer-more particularly to the recommend dairyman—than to Orchard grass for that purpose; and for the following reasons: It is early. It grows continuously throughout the summer and fall seasons. It is permanent in its occupation of the soil, having a strong fibrous root; maintains its hold in clumps, or tussocks, against any and all other grasses, even the blue grass-which crowds out almost every other—making no inroads on its possession when once fairly rooted. We have a field of it, on a strong clayey loam, which has stood for mere than 30 years. It has been cut for soiling; it has been cut for hay; it has been pastured it was first sown with red clover and timethy, which it long ago run out, and, although the white clover and blue grass venture their presence to a limited extent among it, the orchard gaass retains its supremacy, and, breast-high at maturity, lords it over its diminutive trespassers in a bounteous crop, while its humbler attendents, good in their place, modestly fill up a great, nutritious undergrowth at the

It has been objected to the orchard grass that it grows too much in stools or tussocks. If it has a fault, that is one of them, but full seeding will measurably emedy that. It does not stool or spread so universally as the blue grass, or perhaps some others, but it forms a strong, compact root, and that root it holds firmly, enduringly, and, if given a moderate amount of fertilizing matter, its roots fill the surface, and there they stay, yielding to nothing but the utmost abuse by treading out in spring by heavy cattle—which should never be al-

lowed on any grasses—or the plow itself.
Orchard grass yields seed bountifully, and when ripe, which is known by its assuming a yellowish color, it may be cut and bound in sheaves like oats, or mowed, cured, and thrashed out, like timothy. The entire process of its cultivation is as simple as any of our ordinary farm

If any of our subscribers can save us some seed, we should like to procure some next season, as we had a greater demand for it last year than we were able to supply. We think there is not yet. sufficient knowledge about this grass in Canada. Some of our readers might do good to others by sending us their experience with it for publication.

## Charcoal for Wheat.

"There are many instances on record, going most conclusively to demonstrate the very high value of charcoal as a manure for wheat. As a stimulant it is rendred apparent by the most convincing and undeniable facts. A late writer in the Lewisburg Chronicle, in some remarks upon this subject, says:—"A few days since, in company with Mr. Jacob Dorr, of East Buffalo, I visited a spot on the land of his brother, John Dorr, on which the excellent effects of charcoal were plainly visible. Before reaching the spot, I noticed the beautiful bright green of the wheat in the lower part of the field, even at this season—the dead of winter—and remaked to Mr. Dorr, that that must be the spot. He stated that he had not visited it for a number of years, but was under the impression that it was higher up the field. When we arrived at the spot of beautiful bright green wheat, we found, indeed, that it was the locality of the it palatable to the state of animals, and charcoal. In some places the soil was ongenial to the action of the stomach for black with the coal, and the wheat plants its long growth renders it easy to rake pearance is very fine, and they can be and handle; it stores compactly in either seen from all parts of the field, so superior at the contract of the seen from all parts of the field, so superior at the contract of the seen from all parts of the field, so superior at the contract of the seen from all parts of the field, so superior at the contract of the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field, so superior at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the field at the seen from all parts of the seen from all parts of the field at the seen from all parts of the seen from al stack or mow; cuts easily with the hay are they to those surrounding them." It are they to those surrounding them in the mow when fed dry in winter, appears from the communication, that shop occur was a coa presence o tinued a surprising riched by " But it readers, n nature, ne in the soi any perce when app ulant of year, and

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