

Very little is known of underdraining, and very little care is bestowed in preventing the growth of weeds, especially Canada thistles, which overrun the country. Oats and hay seem to be the chief articles grown to perfection. On the island of Montreal there are some good farms. The land is flat and would pay to underdrain, being a tenacious clay. Crops were heavy, and pasture very abundant. Fruit grows in abundance, and of good quality; garden vegetables are superior, and melons excel any I have seen elsewhere. Dwellings of good dimensions and tasty lawns and flower gardens abound; trees by the roadside, as well as around the dwellings, are quite common, and stock breeders are doing especially well, subject to some drawbacks from foot and mouth complaint. We may sum up our 46,000,000 acres roughly, as follows:—Wheat (not good), 4,000,000 acres; permanent pasture, and grain and root crops, have had a suitable season, and have produced abundantly, although much hay has been got up badly owing to wet weather; their second growth is also abundant—33,000,000 acres; peas and beans, a good crop, although rather watery and shrinking, 850,000 acres; oats (which like a moist season) will probably be an average crop—4,400,000 acres; barley in a doubtful position; good in some cases, in others injured and tied to the earth by an unusual growth of weeds—2,700,000 acres; potatoes much diseased.

Correspondence.

EMPORIUM SEEDS.

SIR,—The time has come round again when fall wheat requires to be sown and obtained before sowing can be done. But allow me to refer to what you sent me of the Deihl two years ago now. The crop I found to be about two-thirds of any other kinds; badly mixed, and the seed I concluded to be the same, it being sowed just as I received it. Weeks' winter wheat was good. I was pleased with the peck you sent. I got four bushels—this was quite clean. With the spring grain sent I was also satisfied, the quantity of each being so very small. I think an enumeration would be too tedious. My McCord wheat looked well this season, but is not yet thrashed. Yours, &c.,

JAMES ALEXANDER.

Moore, Collinville P.O., Sept. 4, 1872.

[REPLY.—We regret that the Deihl wheat supplied to Mr. Alexander was not as pure as we expected. We do all in our power to provide the very best seed of these kinds; but sometimes with less success than we wish. The testing of seeds and supplying of them pure and good was the great object we had in view in opening the Agricultural Emporium. We did expect that the Government would aid us in so much-needed and so useful an undertaking, but in these expectations we have thus far been disappointed, notwithstanding all their professions of a desire to promote the interests of Agriculture. They are not slack at election times in courting the favour of the farmers. For years we have spared neither time nor money in meeting the demand for seeds on which farmers could rely. We have spent thousands of dollars in so doing—we have travelled long journeys to judge of the value and purity of crops when growing, and afterwards when preparing for our Emporium. But some farmers will not take due pains to keep their seed pure. Besides, it is so difficult to keep grain from being mixed when other grain is grown on the same farm and sometimes in the same field, from hybridizing, or, after it has been harvested, getting mixed, from being thrashed on the same floor.]

THE APIARY.

SIR,—There is a certain man, representing himself as Mr. Atwood, in this neighborhood at the present time, who says he lives in the city of London, Ont. Said Atwood is selling a recipe as a new mode of management in keeping bees without honey, that is to say, they are fed on artificial bee bread, and kept

in a dormant state from fall till spring. He says he has eighty swarms in the city of London, and keeps them over winter without feeding honey. He also says, that since this new method of keeping bees over winter has been found out in London, two-thirds of the inhabitants of the city keep bees, as it is a profitable business. From the 1st to the 10th of Sept. the bees are driven or transferred from their hive, in which the honey was, and put into another box or hive to subsist over winter as above-mentioned.

Now, as you live in the city, you may know whether the above facts are so or not, and please send me a private letter, stating what you know about it, and also write an article in your valuable paper, the FARMER'S ADVOCATE, stating the same, so that if it be so your readers may be benefitted thereby.

Yours, &c., DANIEL WIERS.

Beamsville, Aug. 30th, 1872.

BEWARE OF SWINDLERS.

SIR,—I feel very much obliged to Mr. Wiers for making the above inquiry, and equally so to you for placing his letter in my hands.

To say that the fellow referred to is a bare-faced swindler, would be using mild language; and I am sorry that, notwithstanding the advances that have been made in bee culture, and the large amount of information that has been so freely given of late, through the press and otherwise, by those who have given the science some study—notwithstanding all this, I say, it is a pity that there are still persons so devoid of common sense, and whose bump of gullibility is so large as to allow such fellows to draw their eye-teeth; but, after all, it about serves them right, for I will undertake to say that they do not take the FARMER'S ADVOCATE, as they would have known better, and that they never went to any show larger than a "peep show" in their lives.

If I were wanting to impose on the public, that is the very last thing I would try, because the very absurdity of the thing ought to condemn it. A stock of bees must have food every day the year around. I know of no condition that they can be placed in to make them live without food for three successive days at any time; the amount that they require depends upon the temperature of the place in which they are wintered. At 33 degrees above zero they will consume about one ounce daily. They must have all they require, or they will die. A stock of bees never goes into a cold, dormant state until they die. A thermometer thrust into the centre of a stock of bees in winter will at all times show a summer temperature, no matter how cold it is outside. Just think for a moment is it at all likely that Langstroth, Quimby, Gallup, Grimm, and a host of other apirians that I could mention, who number their stocks by the hundred—is it at all likely, I say, that those men would allow their stocks to consume from 10 to 20 pounds of honey each winter if they could get them to sit in an empty box and suck their paws from fall till spring?

The only redeeming streak in that fellow's operations that I can see is, that he is doing the same good to me and other bee-keepers, who have bees for sale, that the quack doctor does to the tombstone cutter, for he will surely create a demand for bees wherever he goes.

But to return to the point at issue, and lay all jokes aside. This is the fifth time it has come to my knowledge of villains in different parts of the province using my name for the purpose of victimizing poor innocent bee-keepers to the tune of five dollars each for a receipt for wintering and taming bees. Now, I wish it to be understood that I have as many sins and short-comings of my own to answer for as I can well get along with without being responsible for the villainies of every rag-tag of creation that thinks himself proper to call himself Atwood, the big bee man from London. If I have gained any little popularity in bee-dom, I wish, like the dorkie, to enjoy it myself. All receipts for taming bees, or feeding them on artificial bee-bread, are humbugs, and the vendors are impostors, and all who patronize them are either 50 years behind the times or green.

I ask it as a favor of bee-keepers, that the next time any fellow tries to humbug them in my name, with a \$5 recipe, they will give him the same hint to go that the old man gave Zeb one night when he went sparking—as he went out of the door the old man threw his boot after him (with his foot in it).

Instead of two-thirds of the inhabitants of London keeping bees, I doubt if 30 stocks

could be found within the city limits all told.

—As I am Secretary of the Ontario Bee-keepers' Association, I will take this opportunity of inviting all who can to attend our meetings, either in London or at Hamilton, during the time of the Fairs. I will post a notice of the meetings to any person who may by post-card ask for it, and I shall be happy at any time to give any information gratis that may be required by letter or otherwise.

And I hope that the friends at Beamsville may yet live to have a more favorable acquaintance with the name of Yours, &c., Vaneck P.O. A. C. ATTWOOD.

SALT AND CANADA THISTLES.

SIR,—As my experience might be of some value to my brother farmers, I propose to relate some of the experiments I have tried, and the observations I have made. It is astonishing how little value we place upon information, the giving of which has, perhaps, cost the experimenter the half of his crop or months or years of labor.

I notice in your paper receipts, advice and reports of experiments, many of which experiments I would have tried myself, and wasted money upon, if I had not seen reports of them there. I therefore value your paper so highly, that I consider our farmers would be years behindhand in their knowledge of their own business if they did not have it. Many and many a time have my neighbors come to me to inquire what shall I do for this, or how to cure that, and all I had to do was to turn to my ADVOCATE, and there was the report of what was successful in a similar case, and what failed, and then I told my neighbors what to do. You have no idea what a reputation I have attained for universal knowledge, and all just by knowing what others were doing, by reading in the FARMER'S ADVOCATE. Often have I heard my neighbors say, I would give \$5 if I knew how to do so and so, and I could have told him that one dollar a year for the ADVOCATE would have taught him that, and much more. They talk about Agricultural Colleges being of so much benefit, and our government is willing to spend large amounts of money on them; but I tell you what it is, Mr. Editor, one good Agricultural paper is worth ten dozen Agricultural Colleges conducted on the best principles. I can give reasons for my statement; the articles in the paper are reports of actual experiments made by actual farmers; if they are false in any way, so many other farmers read them that they are sure to be set right. But in the College, the professor repeats to the student the theory that he learned thirty years ago, and the student does not dispute, even if he knows it to be wrong; and then, look upon the matter in another light; the College teaches its ten, and you teach ten thousand. Can any man of sense compare the two?

Now, to change the subject, I want to tell you some experiments I have made with salt. It has become so plentiful and cheap, since we have found it in Canada, that we can use it for many new purposes to great advantage. I use it on all my grain crops. Sow it on the ground about a week before sowing your seed, and it will kill off any weeds which are in leaf, because where it is on top of the ground and exposed to sun and air, it kills off vegetable life. When you sow your grain, your salt is covered up in the earth by the harrowing you give the grain, and I guarantee that you will find the improvement in your crop so great, that you will never again do without it. Salt is especially good in this way—if you are seeding down, as on both timothy and clover, its good effects are wonderful, and weeds have great antipathy for it. I have long used salt for killing off grass and weeds on my garden walks, which it does effectually. The quantity used for this purpose is necessarily much greater than for grain raising. Still, notwithstanding the quantity on the walks, if they are once turned up, and the salt put under the ground, everything will spring up luxuriantly once more.

Now, I want some one else to try an experiment. I have no Canada thistles on my land, or I would do it myself. Sow your thistle patch heavily with salt, so heavily as to kill off everything in it (for it does kill thistles). Leave this salt on for a year and a half, and then plough up. I feel satisfied that not only would your thistles be killed, but your land would be so rich, that its extra quality would more than repay the extra trouble. I have a great many other things to speak of, but will wait for another number of your magazine. PROGRESS.

Aug. 20th, 1872.

[The above was unavoidably crowded out of our last issue.—Ed.]

CROPS IN WEST MISSOURI.

SIR,—As you are always urging your rural subscribers to give their experience in their profession to the FARMER'S ADVOCATE, I send you a few items about the crops and other matters connected with agriculture in this locality. Owing to the great heat and dry weather in the early part of the season, oats and barley are rather slight compared with last season; spring wheat, on the other hand, especially with those who sowed early on properly prepared land, will be an abundant crop of good quality. The fall wheat in this neighborhood, with few exceptions, was badly winter-killed—yield and quality both rather poor. Roots of all kinds are looking well; potatoes, even in spite of the persistent attacks of the bugs, will be a fair crop.

A few weeks before the commencement of harvest we had two severe storms of wind and rain from the north-west, which lodged all the heavy spring crops and made the prospect of harvesting anything but agreeable. We were fortunate, however, in having purchased a reaping machine, which did its work in a very superior and satisfactory manner, even taking very badly-lodged grain up clean. Notwithstanding the superiority of these harvesters over the old hand-rakes, one can venture to predict without the spirit of prophecy that the day is not distant when really efficient self-binders will be the order of the day. Besides greatly increasing the value of land, they would enable the hard-working farmer to dispense with unreasonable demands now made by hired labor. JNO. LEGGE.

West Missouri, Sep. 9th, 1872.

HELLMUTH LODGE.

SIR,—The flower seeds that I purchased from you all germinated, but the extreme drought destroyed most of the young plants. However, I have some beautiful Balsams and Zinnias, I would like you to come and see. The vegetables have all come on well considering the dry season. The nutmeg melons are the finest and best I have ever grown. The thousand headed cabbage is the only sort that has not done well; the growth is enormous, but it will never be fit for table use. Come and see it and judge for yourself. I can show you some good seed if you wish. Yours, &c.,

JAMES BOIT,

Gardener to Bishop Hellmuth.

London, Sept. 25, 1872.

[We are reluctantly obliged to defer several valuable communications until our next issue.—Ed.]

Miscellaneous.

BREATHING.

Considered in all its relations, the function of breathing is a wonder of wonders. Because we are familiar with the process of inhaling and expelling air from the chest, it excites neither admiration, surprise, nor even thought. By watching the play of the respiratory apparatus, however, some perplexing phenomena are presented well worth studying. The lungs are two membranous sacks, one on each side, of unequal dimensions in man, separated by a vertical partition, but united at the bottom of the neck in a single tube—the windpipe. When one lung is diseased, life is maintained by the other. If both are severely inflamed, ulcerated, or in any other way incapacitated for vital service, death inevitably ensues. Every living thing, from animals to the whole vegetable kingdom, is just as dependent for life on atmospheric air as man. Trees breathe through their leaves. If torn away, the trunks will languish and die. Were all the leaves of a fully-grown apple tree placed side by side, were it possible to have their edges exactly touch, so as to appear like a carpet, it is calculated they would cover more than an acre of ground. Some of the gigantic forest trees yield leaves enough to cover an area of very nearly two acres. One's own lungs afford an absorbing surface on which air infringes equal to almost one hundred square feet, it is assumed by some physiologists.

In transplanting young trees, it is an unphilosophical practice to trim the limbs so closely that only a few twigs are left. In that mutilated condition the effort to live is a hard struggle. More die than survive the violence, because they are deprived of their breathing organs. One side of each leaf imbibes carbon from the air for making wood, while the other throws off oxygen for keeping the atmosphere supplied with a material which supports life, without which death would reign triumphantly. Nearly all leaves of trees contain a large amount of an astringent property called tannin. When of a brittle dry, and driven about by the wind, if quilled, they yield just what is needed for tanning leather. Bark, now extremely expensive,