

## CLEAN SEEDING.

In all employments it is expected that the workman shall not only be expert in the manipulation of his art, but shall be well acquainted with the nature of his material. I can perceive no good reasons why it is not equally incumbent on a practical farmer to understand the true character of those plants which it is his especial interest to cultivate or exterminate. If our boys, while in school were required to make themselves acquainted with that portion of the vegetable kingdom which annually demands their attention on the farm, the profession would speedily assume a new and engaging aspect. The labors of the field would be blended with pleasant contemplations of facts of the deepest interest to inquiring minds—and agriculture, instead of being shunned as an irksome drudgery, would be justly esteemed as one of the noblest employments of a free and intellectual people.

The term weed is applied to those intrusive and unwelcome plants that persist in growing where they are not wanted, or a "plant out of place." Many of the troublesome weeds found on our premises are emigrants from other portions of the world. The number of plants indigenous to our section that are entitled to rank as pernicious weeds is comparatively small. As the original savage disappear with the advance of the whites, so do the native plants generally yield their possession as cultivation extends.

The majority of noxious weeds found among us are naturalized strangers, that appear to be quite at home, and are with difficulty to be persuaded or driven away.

The labors of the farmer are a constant struggle. On the one hand, by presenting the most favorable conditions possible, he endeavors to make certain plants grow and produce to their utmost capacity. And on the other to prevent the growth of certain other plants that are ready to avail themselves of these favorable conditions. The farmer is deeply interested in two points concerning weeds. First—how they get into his ground; and second—how to get them out.

Cultivation can be the more profitably carried on if the husbandman knows something of the nature of the plants he wishes to raise. If he would successfully operate in the other direction and stop those hurtful plants from growing, he can do so much better if he knows what are the peculiar habits of the individual with which he has to contend. It is an essential to be familiar with the manner of growth, and mode of propagation of a weed as it is with a useful plant. The plant that spreads itself entirely seed must be differently treated from one that multiplies by the root also, whether we would propagate or destroy. We should bear in mind that while we enrich our soil, we are fitting it for tares as well as for useful grain, and that thorough culture and good farming ensures a sort of general exemption from the pestilence of weeds, and renders easy the subjugation of those which make their way into our grounds. If the ground be not occupied with something good, there will be plenty of the bad to take its place. "Idleness is the mother of vice" in this as well as in morals. Possession is an advantage in other matters as well as law. A plant when fully established is not disposed to yield without a struggle, and the worst ones are generally tenacious of life.

Some one has said that all the plants of a given place are in a state of war in relation to each other. The largest ones smother the smallest ones; the longest lived ones supercede those of shorter duration; and the most fruitful gradually take possession of the space which would otherwise have been occupied by those which multiply more slowly. The husbandman, therefore, should avail himself of this principle, and aid the more valuable plants in their struggle to choke down and expel the worthless.

I once heard a learned gentleman advance the theory, that God at the beginning or immediately after the transgression caused weeds to spontaneously spring up in all places possible for them to grow; or in other words you might go into the depths of the forest wilds and clean off the trees and cultivate the ground and crab grass and other weeds would come without seed being carried there. This is contrary to the Bible as well as correct reason. Those pernicious weeds and grass are introduced in a number of ways. Many have their seed sown with those of the crop; this is particularly the case where the seeds of weeds and of the grain are so nearly of the same size that their separation is diffi-

cult. Proper care in procuring and preserving clean seed will often save much future trouble and vexation. The observing man will notice the means which nature has provided for the scattering of seed; and he will find that the most pernicious seem to have been especially furnished with contrivances to facilitate their dispersion. The burdock, beggar lice and others have barbs or hooks by which they adhere to clothing and the coats of animals, and are widely distributed, even in the forest by this agency. All the thistle family and many others have a tuft of fine silky hair attached to the seed, by which they are buoyed upon the air and carried from place to place; and are generally deposited in protected localities by the waves of the atmosphere, to the leeward of fences and other objects. So numerous are the ways by which seed are dispersed, that, however careful a farmer may be upon his own premises, a sloven and neglectful neighbor may cause him infinite annoyance by furnishing his lands an abundant supply. In some countries a farmer may sue his neighbor for neglecting to destroy the noxious weeds upon his lands; or he may employ it done at the delinquent's expense. Weeds that have been cut or pulled after they have bloomed should not be thrown in the barn lot or manure heap, unless you wish to have the work to do over again with their progeny, as the seeds will be thoroughly distributed in the manuring of the land. The better policy would be to burn them, or destroy them before they bloom. In weeds, as well as in the government of children, evil should be nipped in the bud. In this respect the farmer should act in the spirit of the western savage who kill the women and children of their enemies as a sure way of preventing the multiplication of warriors.

One of the most troublesome classes of faith is that which seed at root and top as the garlic, dock, &c. Here not only has the propagation by seeds to be prevented, but a subterranean and hidden enemy has to be combated. It is very important that the farmer should understand the way in which these plants grow, that he may know how to direct his efforts to subdue them.

Perennial weeds are easily destroyed during the stages of their existence; but later in the season they form strong roots in the ground, which have great tenacity of life, and which have in them an accumulation of nourishment which enable them to throw up several successive crops of herbage. Plowing such weed generally aggravate the trouble, for unless every fragment be removed from the ground—a thing very difficult to accomplish—each piece that is left makes a separate plant. In the case of weeds of this description, the necessity of early eradicating them is apparent, for if once well established, and an underground provision depot formed, the husbandman and the plant are placed in the condition of besieging and besieged forces—as long as the provision holds out the latter can maintain its ground. The tiller will do well to keep in mind two rules. *Do not let weeds bloom, and do not let them breathe, for the leaves may be considered the lungs of the plant, and without the aid of these it cannot long maintain itself.*

It don't require an unusual amount of gumption for a person to know, that to have good and wholesome bread, his grain must be clean of filth; a thing we all most heartily desire. To accomplish it, like repelling an armed foe, requires the united effort of all concerned. It could be done in a comparatively short time, if all who cultivate farms would manfully unite in the effort. Five or ten years of persistent effort of all hands would obliterate it from any section. It can only be partially done as long as part neglect it. Filth is spread in such a multiplicity of ways, that if a few clean their fields it will gradually find its way back in some of the ways already noticed. A compulsory law that would compel each person to clean his lands of these obnoxious cumberers, would be a wholesome one, and as just as to slaughter a drover's cattle infected with pleuro-pneumonia, to prevent the spread of the disease or to quarantine a vessel for the same purpose.

A species of filth that springs up among the small grains and matures at the same time they do, and known among us as cockle, is of European origin, and belongs to the pink family. In appearance it is so very different from the grain it infests, that it can be easily distinguished and taken out of the grain. It waves its colors

triumphantly over harvest fields at blooming time. This renders it so conspicuous, that nothing but sheer neglect (a species of laziness) will suffer it to remain till harvest time. Its rough, black seeds when abundant among wheat, are injurious to the quality and appearance of the manufactured flour; and the miller who seeks a reputation for making good flour, and don't despise cockle is an anomaly that would be a conspicuous figure in a variety show.

There is another class, a native of the same country, and known as spelt or Georgia cheat. It is the most difficult of all the tares to get rid of. It is so near the size and heft of wheat, and in appearance, while growing, so nearly like the grain, that it is next to impossible to winnow it at maturity or pluck it while growing. The only way that I can conceive to get rid of it is to pick it with the fingers from the seed grain. It is of a gluey texture and clogs the boulding cloth while grinding. It is unpalatable to stock. They refuse to browse upon it, consequently it will flourish in pasture lands.

Close akin to the last named is another of the grass family known as chess or cheat. It is lighter than wheat and can, most of it, be blown out with a fan mill. Its stem and blades while growing have a fuzzy appearance, and by close observation can be distinguished and pulled out from the grain. Its name is significant, and he who suffers it to grow around him will find himself cheated in the end, as it is extremely prolific and neither beast or fowl will partake of it, if they can find anything else to subsist upon.

Among the curious and vulgar errors that infest the minds of credulous and careless observers, may be mentioned the belief of a few farmers, and some of them good practical ones, that this troublesome grass is nothing more than an accidental variety or casual form of degenerate wheat, produced by some untoward condition or unpropitious season, or some organic injury, though it must be admitted, I think, by the most inveterate defenders of this faith, that in undergoing the change, the plant is surprisingly uniform in its vagaries in always assuming the exact structure and character of cheat.

We have a confederate in this controversy on transmutation, one Moses, the great Jewish legislator, and the first of the Old Testament writers. He was a prophet of the Most High, and supernaturally guided and aided in his writings. He lived forty years in Egypt the great wheat country of the East; and forty years in Midian with Jethro among the herds, and was familiar, no doubt, with all the grasses; and forty years in the Wilderness where he saw many other things besides serpents. His testimony is, after describing the creation of the earth, the firmament, the water and the light (these are the essentials of plant life) and giving them their bounds, that the herb should yield seed after its kind, *whose seed is, in itself.* Not in or capable of being transferred to another. An herb is a plant that dies to the root every year. If one herb can change to any other they all may. Therefore our crop would be exceedingly precarious. Taking into consideration this view of the matter we might possibly sow tares and reap good grain, or vice versa. The enemy that came while the husbandman was asleep and sowed tares among the clean grain might have benefited instead of damaging the man, if the season, &c., were propitious. If wheat will change to cheat under a certain condition, why does it not, by changing the conditions turn to wheat again; or why not transform to some other herb as well as cheat. Cheat, as the name implies, is next to worthless. Can we dare we—accuse God of cheating us by changing the staff of life to something worthless, by means that we cannot avert, when we have done our part by producing it with our toil and sweat. Such is closely allied to infidelity. We ought to be cautious how we advocate such theories before the young for fear of shaking their faith in the goodness of God. The advocates of transmutation, in this Bible reading land, ought to be placed among the fallacious isms, and go, like Millerism to the undertaker in infancy.

There are many grasses and weeds whose fruit mature at the time the cultivated crops do, and become mingled with them to the detriment of these crops. But few of them are indigenous. The greater portion of them are of foreign origin. A few of them are bulbous and seed producers also, and multiply both in and above ground. Such is garlic or wild onion above named. It is of European

origin and was introduced by the first Welsh emigrants for the purpose of supplying an early pasture. This we could willingly forego in order to get rid of the onions. It is now completely naturalized and will stay with us unless we are vigilant in our endeavors to get rid of it, and the sooner the better as it will germinate after laying twelve months on a dry plank. Like the skunk, its offence comes of its odor and is lasting. This enters, when grazed upon, into milk, butter, cheese, beef and pork, and renders them repugnant even to the most inveterate onion eater. Its effects not only reduces the articles, but absolutely renders them unsalable in the leading markets at any price, and if the cow had the second lick at them like the milk drinker she would, no doubt, loath them too. Thorough culture in summer crops will ultimately destroy them as well as the fertility of the soil. Better pursue a more economical and safe mode, than entail such wide spread destruction, such as I caught John Dorset practicing. He was going over his fallow field with a basket and mattock digging them up and putting them in the basket to carry to the wood pile and burn. His good lady entered her protest against burning them in the fire place, as they ruined the ashes for soap purposes, by imparting to them a flavor that we are not willing to take along with us in our Sunday clothes.

Another disgusting mode of introducing filth into the grist is to suffer rats to harbor where we store grain. They are double injurious as they consume the grain as well as defile it. All the poisons manipulated for their extermination are exceedingly dangerous, and I think it safest to leave them with the manipulations. The ancient mode of keeping cats for the purpose is the safest and most effective. They will catch them for sport as well as for food, and are eager for the chase when not pressed with hunger. This the facetious may term the cat-egorical mode.

As the Lord swore to hold war of extermination against the Amalekites, so let us, in humble imitation, sow extermination against all filth in grain. If we become heavy handed and weary, like Moses did in the battle against Amalek, possibly an Aaron or Hur, among our friends may hold up our hands in encouragement until the going down of the sun, and until the last root, stem and blade be exterminated from this fair land of ours. And then, and not till then, will the grumbling and muttering of the consumer about bad flour be hushed by the elastic tread and joyous salutations of the hosts of clean seeding and clean field farmers in their march back to Edenic days. And thus we may stay the tide of emigration of the West and Northwest and cause them to remain among us that we may have choice sons to inherit our lands, who will be noble enough to preserve their fertility and cleanliness.

DAVID MADISON PAYNE.

## THE EVILS OF IMMIGRATION.

The broad, liberal and comprehensive policy adopted by the United States in dealing with the question of immigration has led to the rapid development of the resources of the country, and to the aggregation of wealth, and also furnished a home market for our vast productions, agricultural and mechanical. We have drawn heavily upon the population of Europe for the bone and sinew to build our railways, till our farms and develop our mines. So far as these immigrants were possessed of thrift, industrious habits and law-abiding natures their coming has been esteemed a national blessing.

The danger line seems to have been reached in the fact that the character of a large percentage of all the immigrants now arriving at Castle Garden is not of the material to fill the above-named requisites, and, in fact, are not safe or desirable as an element of our population. In this connection the Philadelphia Press prints an interview with Dr. Schultz, whose duty it is to examine all immigrants who arrive at Castle Garden. We quote from the interview:

"Fifty per cent. of the immigration of the past few years is undesirable, and half of that fifty per cent. is a positive burden on the country. Our present laws clothe us with authority to send back about one-half of one per cent. of the total immigration. The absence of restrictive legislation is already beginning to be felt in many communities, especially in the West, and the emigration commissioners receive letters every day begging them to stop further immigration West.

Most of the undesirable ones make their way out there somehow, and become charges on the community. Foreigners fill all the Western poor-houses and lunatic asylums. Some years ago they would make no effort to get further than New York, relying on their chance of getting a home on Ward's Island, but the authorities began sending them back from there, and they have now taken to the West. The worst elements in the immigration are the Italians and the Polish Jews. The contract system among the Italians is still maintained, and bands of them, whose passage is paid by contracts, come over on every ship. All of them go to work on railroads. The Polish Jews settle down on the east side of New York and sew buttons on men's clothing for the wholesale firms along Broadway. They live in filth and poverty. The 'assisted' immigrant is also a cause of trouble, but undesirable new comers are in every nationality."

A statement of such a startling character from one so well fitted to judge, should set legislators, political economists and other well wishers of this glorious Republic to investigating and devising some means whereby the wheat may be separated from the chaff, and whereby undesirable immigrants shall be prevented from embarking from foreign shores. The fruits of this system are to be found not only in the asylums, almshouses and prisons of the country, but in the menace to our political system by the gathering of great colonies of foreigners in the chief cities of the West, who herd together in their own quarters, continue to speak their own language and commence to plot against the public peace as soon as they are settled.

It is time, certainly, that the best American statesmanship should devote itself to the consideration of this problem with the seriousness which its importance demands. Dr. Schultz is of the opinion that a head tax of \$50 or \$100 would meet the difficulty, but American public sentiment would probably shrink from applying that remedy. A better plan would be the requiring a certificate from the United States consul at the point of departure, as suggested by the German societies of the Northwest. It may not be easy to suggest remedies free from all objections, yet the signs of the times should not be lightly disregarded, and action should not be delayed until too late to control a growing evil.—*American Cultivator.*

## HOW TO READ.

Nobody can be sure that he has got clear ideas on a subject unless he has tried to put them down on a piece of paper in independent words of his own. It is an excellent plan, too, when you have read a good book, to sit down and write a short abstract of what you can remember of it. It is a still better plan, if you can make up your minds to a slight extra labor, to do what Lords Stafford and Gibbon and Daniel Webster did. After glancing over the title, subject, or design of a book, these eminent men would take a pen and write roughly what questions they expected to find answered in it, what difficulties solved, what kind of information imparted. Such practice keep us from reading with the eye only, gliding vaguely over the page; and they help us to place our new acquisitions in relation with what we knew before. It is almost always worth while to read a thing twice, to make sure that nothing has been missed or dropped on the way, or wrongly conceived or interpreted. And if the subject be serious, it is often well to let an interval elapse.

Ideas, relations, statements of fact, are not to be taken by storm. We have to steep them in the mind, in the hope of thus extracting their innermost essence and significance. If one lets an interval pass, and then returns, it is surprising how clear and ripe that has become which, when we left it, seemed crude, obscure, full of perplexity. All this takes trouble, no doubt; but then it will not do to deal with ideas that we find in books or elsewhere as a certain bird does with its eggs—leave them in sand for the sun to hatch and chance to rear. People who follow this plan possess nothing better than ideas half-hatched and convictions reared by accident. They are like a man who should pace up and down the world in the delusion that he is clad in sumptuous robes of purple and velvet, when, in truth, he is only half covered by the rags and tatters of other people's cast off clothes.—*John Morley.*