



AUTUMN SONG.

BY AUGUSTUS B. KNOWLTON.

The zephyrs are hurrying through the woods,
A singing a silver song;
They're pulling the beard of the golden grain,
And laugh as they hurry along.

They're plucking the roses from many a tree,
But, oh! not a white care they,
For the flowers that smile with a summer's sun,
And live but a summer day.

They've ruffled the robin's scarlet breast,
And broken a white dove's feather;
They've whispered a word to the mourning bird;
And now dance over the heather.

Oh, ho! ho! ho! for the autumn wind,
Laughing so clearly, cheerily;
It kisses the white sail over the sea,
And bloweth the white foam merrily.

Hurrah, hurrah! for the autumn wind,
That scatters the fruit in showers—
The roses are dead and the lily has fled,
But the fruit is better than flowers

[For the Deseret News.]

The Effects of Winter Digging and Plowing Ground.

In taking a stroll around the city, I found Mr. Hemingway digging a piece of ground from 14 to 16 inches deep, in a low rich bottom soil, composed principally of decayed vegetable mould, sand and thin clay, and most probably, a portion of shell and the remains of animal substance in a decayed state. These substances which doubtless had been accumulating many centuries, were formed into layers from 3 to 6 inches thick, and rich, with components adapted to the growth of vegetables, when exposed to the atmosphere, sun, and those elements, which prepare all ingredients of food contained in the soil in a proper state as food for plants.

The upper surface of the ground, was in a fine mellow state of a rich black alluvial, and so far as it had been cultivated by the plow, in excellent condition for a crop; but the underground or pan was in a close, adhesive state, owing to the annual tread of cattle, and the heel of the plow in working the soil which had a tendency to make the subsoil more hard and compact than otherwise. There are thousands of acres of land of the same quality in these valleys, full of the very best ingredients for crops in this state, that will probably in time, be considered as "run out," as every successive year's plowing at a certain depth, will not only serve to make the pan or subsoil more hard, and in a worse condition for the roots of plants to penetrate through, but it will in time also become sour and have the effect to injure the crop, and hence the very ingredients in the ground, which would, if exposed in the above way, give life to and invigorate the crops, will prove deleterious to them by the roots penetrating into uncongenial soil.

All the voluminous writings yearly issued from the press on the best principles of cultivating land, may be summed up in a little space, viz., the more land is moved and exposed to the atmosphere the better its condition for the growth of vegetables.

1st. The roots of plants can penetrate deeper to extract the nutriment from the ground, and are more secure from drought.

2d. Water can penetrate deeper and comes in contact better with the lower fibrous roots of plants. Ground worked deep also retains moisture and the roots receive a gradual benefit in dry seasons.

3d. Sun, air, and rain can penetrate better and deeper into the earth.

4th. As it is held as a law, that vegetable roots inhale much nutriment from the atmosphere—loose, deep ground takes in a greater portion of such elements than that which is hard and adhesive.

5th. The working ground deeper in winter lays insects in their dormant state bare and consequently their eggs, crystals, etc., must eventually perish.

As a great portion of ground in these valleys is composed of various formations, of sand, clay, gravel, and decomposed vegetables, with different portions of native salts in beds in a crude state, it is of the greatest importance to the cultivator, that the soil be worked deep, and well mixed, in order to bring it in contact with the atmosphere, and to prepare the ingredients as food for vegetables, and while such ground is only surface worked little good may be expected for any length of time by the cultivator.

One thing should be borne in mind by those who plow or dig land in the winter, and that is, never do the work when the ground is too wet, after rain or snow, so as to leave it in a close adhesive state after the spade, which will require at least one season, to bring it into a mellow, lively condition. Another consideration should also be borne in mind, not to bring up too great a portion of the subsoil at one time, if a crop is expected the next season.

The best method of working land in this country is to bring up a little of the subsoil every year, which gradually becomes neutralized as it is brought in contact with the atmosphere, and hence, every season adds a greater

depth of the improved soil to the ground. When a great portion of subsoil is brought up to the surface, it often occurs that seeds do not germinate freely, and the roots of the young plants do not penetrate freely into the ground, owing to the soil being in a crude state; hence it should be the object of the cultivator to take every advantage to plant such ground when it is in good condition, and at a time when the seed will be most likely to germinate well. If a little rotten manure be thrown on the surface and worked in before planting, it will be all the better. For the neglect of the above precautions, a meagre crop has often been the result of working ground deep the first season; but this has but little to do with the principle of good management in working land deep to insure good crops.

E. SAYERS.

The Catawissa Raspberry.

There can be no longer any question as to the merit of this raspberry. We have now tested it for three years, and pronounce it to be a real desideratum. It bears two crops of fruit in a season; but as many persons have other kinds which are better bearers at the time of ripening of the first crop, they combine the energies of the cane upon the second crop which ripens late in the autumn; indeed continues to ripen from September to the first of November, should the weather not become too severe. At this writing, (November 1st,) we have upon the bushes large and perfect fruit, highly flavored as they would be in July. Yesterday, (October 31st,) from the canes of five stools, a little basket of fine fruit was taken; and the same quantity twice a week for some weeks.

We know of several pretty extensive growers of the Catawissa, who cut down all the canes, after ceasing to bear in the fall, close to the ground—this will give strength to the new canes the ensuing season which supplies the late crop. The early crop is taken from the wood allowed to remain over winter. Those who prefer the two crops, must about the middle of this month, prune the vines ready for staking in the spring, bend them carefully down to the ground and cover them with from three to six inches of earth, shaped to a point on the top. When this year's wood is removed, cover the stools with an inch or two of soil, banked up in the same way. We have found this better than any other protection against frost.

The way to propagate this raspberry, is to take up the roots, say the latter end of January or beginning of February—cut them up into inch pieces, as the eyes may indicate—plant them in a box of sand about one inch under the surface—place under glass in a hot-bed, and keep moderately moist. One old stool will produce from twelve to twenty new canes.

Parsnips—Their Management.

Parsnips are materially improved by frequent freezing and thawing, and therefore, no more of the crop should be taken up in the fall, than is required for fall and winter sales or use; for those left in the ground during winter are materially improved in quality for spring use, besides increasing their quantity, as they continue to grow until arrested by "very winter."

The digging of parsnips can be best performed by the lifting subsoil plow, run so deeply as not to cut off the tap-roots, but merely to raise the whole mass of soil, and thus loosen them so that they may be pulled out by their crowns. In addition to facilitating the gathering of the parsnips, this practice disintegrates the soil, so as to render its spring preparation for other crops much more readily performed.

Parsnips, after having been frozen, form an excellent food for hogs; and in moderate quantities, alternating with carrots or beets for cows, fattening cattle, etc. In the island of Guernsey, milch cows are nearly sustained during the winter on the parsnip. Upon this island they grow in great perfection, and give an immense yield.

We have raised what a Committee of the American Institute estimated at fifteen hundred bushels of parsnips on a single acre. Therefore as an alternating crop, parsnips may be grown with profit. Their culture cleanses the ground of weeds, and leaves it in high tilth for other crops, while the parsnip does not remove an undue quantity of pabulum from the soil.—[Working Farmer.]

A Hint to Grape Growers.—An important discovery has been made in the treatment of grape vines, in France, which we do not remember to have ever seen noticed in this country. It was attended with the greatest possible success, and is of the following character: It consists in taking a narrow ring of bark from the inner end of each branch. The rings should be taken from all round the branch, and should be as deep as the liber or inner newly-formed bark of the plant, without injuring the latter. The effect of this process is to check the formation of the leaf—mere green, useless stuff—and accelerate the growth and ripening of the grapes by at least a fortnight. Specimens shown at the exhibition in Paris, in 1859, demonstrate the fact that in the grapes, taken from the same vine, those gathered from the branches that had been ringed were considerably larger and finer than those taken from the branches that had not undergone that operation. In every instance that it has been tried, the same results have been obtained. A very little practice will insure speed and dexterity in ringing the branches, and a large plantation could easily be improved by following the above directions.

A French Agricultural Institute.

The Agricultural Institute of Beauvais was founded in 1858 by the aid of the Government, and under the patronage of the Prefect, the Bishop, the Deputies of the Department, and the Presidents of its Agricultural Societies. Its objects are, first, to give theoretical and practical instruction to boys of 15 or less, who wish to devote themselves to agriculture; and, secondly, to prepare young men, from 18 to 20 years of age, for agricultural professorships in lycées, colleges, seminaries, primary normal schools, and wherever it may be possible to establish a course of agriculture. The theoretical portion of the course comprises agriculture, arboriculture and sylviculture, rural engineering, linear design and rural architecture, rural law, zootechny and the management of cattle, agricultural entomology, physics and chemistry applied to agriculture, natural history, botany and geology, and agricultural economy generally. The practical instruction comprises the care and use of tools, instruments and agricultural machines, the principal operations of culture, gardening, the conduct of trees, etc. The school has answered to a need universally felt; the excellence of the instruction and of the education received in the new institute has been tested by the most competent judges, and now there are arriving at Beauvais, from nearly all the provinces of France, hard-working young men, animated by the most earnest spirit.

The exhibition of the school was unanimously pronounced to be one of the most instructive and brilliant of the *Concours*. It comprised, first, specimens of various crops raised on the farm de la Fonderie, in the Department of the Mense, under the direction of M. Gossin; secondly, a collection of experimental results made by M. Marie, from 1855 to 1860, and thirdly, an entomological collection applied to agriculture, by M. Mihau.

M. Marie's experiments were exceedingly interesting. In wheat, he commenced with 225 varieties, which he reduced to 40, and then to 32 and to 23, and which he will probably reduce hereafter to the 10 following: Blue, White Essex or Scotch, Zealand, New Holland, St. Laud, Mesnil, St. Firmin, Hague, Hensengland, Hickling, and Ely Giant. Of the 26 varieties exhibited, he had specimens in the milk, in grain, hulled, and in flour, and also separated and classed according to the yield in grain, starch and gluten.

Of Indian corn he exhibited 26 varieties, twelve only of which are worth cultivating in the latitude of Paris. These are, in the order of their yield, White Corn of Saluces, Giant Caragua, Red, Early of Saluces, Early Tuscarora, Hybrid zed Quarantine, Dog-toothed, Yellow-tipped, Dwarf Saluces, Red-tipped, Horse-toothed, and Quarantine, a list wherein our English names are slightly travestied. The mean yield per acre was one hundred and six bushels. The New Holland corn grew to the height of from ten to fifteen feet in particular land. By soaking the seed-corn for twenty-four hours in a solution of iodine in alcohol, or in alcohol alone, its germination is hastened, so that, instead of requiring ten or fifteen days to come up, as dry seed does, it will come up in three or four days.

Of potatoes there were 64 varieties. Only the late varieties now offer any chance of success since the very general potato rot. Of 21 varieties of beets, the mean yield was twenty-three tons per acre, while that of the best variety rose to forty tons. The most productive variety of carrots, of which twelve varieties were exhibited, yielded sixteen tons to the acre. Of 23 varieties of turnips cultivated, the best gave twenty-two tons per acre.

Of barley, oats, beans and sorghos, there were also a large number of varieties. The sugar-sorgho is completely acclimated at Beauvais, where it ripens at the end of September or in the first week in October. It grows ten feet high, and the yield varies from twenty-five to thirty tons per acre. Cut green about the last of July, it gives from ten to twelve tons of the best fodder. The exhaustion from a good crop is equal to that from three crops of wheat.

The memoir accompanying this exhibition contains a considerable number of analyses of soils and of products, and still more is promised in a new edition.

The entomological collection of M. Mihau is newer, more original, and not less interesting. In a number of small pictures he has arranged the insects injurious to agriculture beside the ruins which they cause. Accompanying it is a large collection of the eggs of birds which destroy these insects, and which it is the interest of farmers to protect.

Blackberries.—Of this fruit, Mr. Knox has ten acres in good condition. The varieties are the Lawton and the Dorchester. The Lawton he thinks the most profitable for all purposes, and intends increasing this department next year. The cultivation of the Lawton, although of recent introduction, has spread throughout the country with amazing rapidity.

The berry is grown in many districts for wine making, and is found, by actual experiment, to be more profitable for that purpose than when sold at twenty-five cents per quart. Eight gallons of ripe fruit yields five gallons of juice, to this is added ten gallons of water, and the required number of pounds of sugar. Many wine drinkers consider it a superior article. When the Lawton is fully ripe, it is a delicious fruit.

Prolific.—The *Hydraulic Press* brags of a lot of fine potatoes, part of a second crop grown in the garden of B. P. Avery, at North San Juan, this season.

Fine Flavor of Grapes From Digger's Bones.

One of the most fertile spots of soil in the foothills of Yuba county is Money's garden, at Empire Ranch. The soil is black and loose, and watered by perennial springs. There grow the largest and best flavored Black Hamburg grapes which we have seen in the State; there ripen the most luscious figs; there swell above ground and turn green in the sun the most mealy tubers. But the blackest and richest portion of this garden is a slight knoll near the bath-house. A grape vine which springs from it and embowers the house named, bears fruit of a peculiar and decidedly superior flavor. After eating to repletion from other vines, the grapes that grow on this, though of the same variety, tempt one to gluttony by their additional sweetness and delicacy. Trying to account for this, we discover that the soil whence this fine fruit grew is formed chiefly of decomposed granite, and we fancy that the potash thus set free has been drawn by the subtle chemistry of vegetation into the translucent oval lumps of lusciousness which just betrayed us into intemperance, and made them superior to their congeners in the alluvial bottom.

But this is not the whole secret. Happening to turn about, we see on the ground the blackened and crumbling remnant of a human bone, which a slight pressure of the foot flattens into powder. This circumstance elicits from a companion the strange information that on this knoll the Indians once burned their dead. That instantly accounts for the oily, lampblackness of the soil, and for the superior flavor of the grapes. The simple Diggers have unwittingly enriched the earth and made a delicious fruit more delicious, by their ancient rite of cremation. The ammonia, and potassium, and phosphates in the dead bones of their kindred, freed by fire and dissolved by rain, have gone into the sap of the grape vine and into the juicy pulp of its fruit, and by nicer combination than the chemist discerns in his laboratory have produced the flavor which tickles the palates of human creatures, whose living organisms is made up of a different combination of the same elements. Thus work eternally, through all forms of life, the mysterious laws of production, decay and reproduction. Thus human reason is taught the mutability yet the indurability of things, and faith may derive assurance of immortality; while those who seek less lofty meanings in the operations of nature, have confirmed to them the fact that bones, burnt or unburnt, are the best fertilizers for grapes.

While saying this, we advise nobody to violate public prejudice by burning his friends to enrich his vineyard. There are good arguments in favor of cremation as against interment, and it might seem capital to use for fertilizing purposes the ashes of some fellow who was of no value when alive and treading lazily over the dust of his dead betters. The ammoniacs and phosphates from his body and bones would probably make just as good grapes as the same elements from the resolved organism of a saint or hero. But society has its prejudices, and what was classic and beautiful with the intellectual Greeks, and is still practised by the poor Diggers as a loving and holy rite, would be thought barbarous and shocking by refined Americans. So our grape growers will have to resort to the bones of less noble and squeamish animals than man. If they want to improve the quality of their fruit they must gather the broken-up fragments of the genus bovine, ovine and porcine, and plant them, whether burnt or unburnt, about the roots of their vines. This is a timely hint, for the season is near at hand when those who contemplate planting grape vines at all will be at it; and may their name be legion. Thus endeth our prosy preachment.—[Marysville Appeal.]

English Horses.—A writer in the *London Review* complains that the noble breed of useful English horses is becoming ruined. He says: "Our country once famed for the best breed of saddle horses in the world, is becoming overrun with a lot of worthless, weedy, refuse racing stock, which by many inexperienced farmers and breeders, are gradually being crossed with, and thus deteriorating the breed of our short-legged, deep-bodied, wide-hipped, strong-loined saddle-horses, the lineage of which, in a few instances, we still trace, by their compact forms, to the breed of race horses encouraged by our forefathers, who bred horses for useful purposes, to carry men long distances, and not the spindle-shanked velocipedes bred by our turfmen of the present day, that break down after running a few furlongs with a baby on their backs."

How to Keep Eggs.—A correspondent at Goodwinsville, N. J., has had good success in keeping eggs in the following manner: With an inch and a half auger holes were bored in shelves, which were put up in a coal cellar protected from frost. The eggs, as fast as collected, were set in these holes, with the little end downward. Some were used in three months, some in six months, and the balance in a little over a year from the time of storing, and all were reported as perfectly good. The cellar in which eggs were kept so well, must, we think, have been very dry and cool. It would be well for those making this experiment to try a small quantity at first; they might not keep as well under all circumstances, as in the case above.

To Clean Pork Barrels.—It is recommended to clean tainted beef or pork barrels by filling them with fresh earth, bury them in the ground, and let them remain some time. The earth will absorb the taint. In extreme cases repeat the operation once or twice.