

Agricultural Items.

FLOWING TWICE FOR WHEAT.

A correspondent of the Cincinnati *Gazette* writes:—If anyone will break his ground deeply and thoroughly two or three times during the spring and summer the extra amount of wheat per acre will pay for plowing, and leave a handsome profit besides. I have tested this practice several times, with the most satisfactory results. In 1868 I had a field of 16 acres of like fertility. I expected to plant half of the field in corn, but for some reason I did not. In the half that had been plowed for corn after the ground had been broke, the weeds grew more rapidly. Consequently I broke it again the 20th June. On the 1st of September following, I plowed the entire field, and sowed in wheat. The result was as follows:—The half which had only received a single plowing yielded per acre 13 bushels and 18 pounds; the half that received breakings yielded per acre 23 bushels and 40 pounds, which made a difference of more than 10 bushels per acre. At one dollar per bushel this would pay for the extra plowing, and leave a net extra profit of six dollars per acre besides.

VALUE OF NIGHT SOIL.

Liebig reports that in the fortress of Rastadt and in the soldiers' barracks of Baden, generally, the privies are so constructed that the seats open, through wide funnels, into casks fixed upon carts. By this means the whole of the excrement, both fluid and solid, is collected without the least loss. When the casks are full they are replaced by empty ones. The farmers about Rastadt and other garrison towns having found out by experience the powerful fertilizing effects of these excrements upon the fields, now pay for every full cask a certain sum (still rising in price every year,) which not only has long since repaid the original outlay, besides covering the annual cost of maintenance, repairs, &c., but actually leaves a handsome profit to the department. The results brought about in these districts are highly interesting. Sandy wastes, more particularly in the vicinity of Rastadt and Karlsruhe, have been turned into smiling corn-fields of great fertility.

THE SUBSOIL PLOW.

A correspondent of the Cincinnati *Gazette* writes:—It should be used in the spring, following in the furrow of the breaking plow, and loosening the soil six or eight inches deeper. The breaking plow should turn the soil up six inches deep, making the entire loose ground twelve or fourteen inches deep. A crop of corn is best to grow on the sod; and the effect of subsoiling will be seen in the crop by the time it is two feet high. The heat of the sun and the exposure of the soil to the air, together with the presence of the corn roots, prepare the subsoil for turning up to the surface. The following spring, the field should be plowed so as to place one-half of the subsoil on the earth's surface. At the next plowing all this loosened subsoil can be turned to the surface. By this process the soil and subsoil are mixed, and the latter becomes naturalized to the raising of grains. In breaking up the last two times, care should be taken of course not to plow when the soil is too wet.

RAID OF GRASSHOPPERS.

A correspondent of the Boston *Journal* writes as follows from Oxford, N. H.:—In the lower part of this town the grasshoppers are making great havoc on the grass, grain, corn, &c. For a space of about one and one-half miles square they are destroying almost everything. Clover is trimmed up all but the heads, oat fields look like fields of rushes coming up to the height of 16 to 18 inches, without leaf or head. In wheat fields the leaf is eaten and the kernel eaten out. These hoppers move back and forth two or three times a day. As we were looking at a field a day or two since, the whole section where we were looking became almost alive. The hoppers began to move to some other field. At night the fences are black, and in spots in the field where they congregate at this time they may be gathered in large quantities.

The Perth *Courier* thus speaks of the grasshoppers in Lanark:—“We regret to learn that the grasshoppers are on the war path in some part of the rear townships of this county, and are committing wholesale depredation among the grain and hay crops. An eye-witness informs us that between the 5th and 7th lines of Lanark township he observed countless numbers of the destructive insects in the fields and on the fences along the road, holding a general picnic at the expense of the growing hay and grain. In some instances whole fields were eaten ready for the mower or reaper, had been eaten down as close as sheep pasture.

INSECTS IN OHIO.

Secretary Klippord reports as follows in relation to insects in Ohio:—The Colorado potato beetle (*doryphora decemlineata*) is found in every country, but as a rule is doing very little damage, on account of the vigilance of the farmers. Hessian fly in many counties, and the weevil (*cecidomyia tritici*) is again making its appearance, having come into the State in 1850 and disappeared in 1859.

THE SUGAR BEET.

The efforts to introduce the culture of the sugar beet in this country merits more encouragement than they have yet received, though there can be little doubt that this root will ultimately become an important product of our agricultural industry. At an agricultural meeting in Valenciennes, France, a few years ago, a triumphal arch was erected, bearing the inscription:—“The growth of wheat in this district before the production of beet root sugar was only 973,000 bushels; the number of oxen was seven hundred. Since the introduction of sugar manufacture the growth of wheat has been 1,168,000 bushels, and the number of oxen 11,500.” There is probably no crop that returns so much to the soil as this. Wherever its culture has been introduced in Europe, the product of wheat and cattle has greatly increased. The same results would undoubtedly follow its cultivation here.

IMPORTANT TO FARMERS.

An old farmer says, that now is the time to sow plaster on the turnips, or just as soon as the leaves pretty well cover the ground; and that wherever the article is used at least one-fourth more crop will be obtained, as his own experience has proved. Plaster is also a protection against the caterpillar, and if used to the extent of 100 lbs. per acre will prove very profitable. The same gentleman also suggests that turnips should be sown earlier in the season to protect them from the drouth and fly, much of the failure of this year's crop being caused by the former. The prevalent idea that early turnips do not keep well is an erroneous one, whilst the size and yield of the early sown root is greatly in advance of the late crop.

The Westminster Township Council at their last meeting, on the 3rd July, passed a by-law to authorize the pathmasters of that township to enforce the Statute for preventing the spread of Canadian distillies.

DIGGING EARLY POTATOES.

My Early Rose potatoes are ripe, and if I leave them in the ground during the hot, dry weather of August, they will be more or less injured, either from the high temperature of the soil, or, if rains occur, a partial second growth may injure the quality of the tubers. Taking all into consideration, I think it is best to dig them and spread in the coolest cellar I have, admitting all the air possible without light. From several years experience with the Early Rose, I have found it one of the very best potatoes for use in Spring as well as Fall and Winter, but one, like all the very early sorts, more difficult to keep through the latter part of Summer than in Winter, although no loss need occur, provided the tubers are carefully harvested when ripe and stored in a dry, cool place. —*Cor. Rural New Yorker.*

SUGAR BEET.

The California *Farmer* says:—The sugar beet crop belonging to the Sacramento Sugar Company looks splendidly, and the product will be very large per acre. They have one thousand acres in beets, in the bottom lands of the American river, in the lower end of Brighton township, and are cultivating them closely.

THE POTATO BUG.

A gentleman, addicted to scientific inquiry, has discovered that 33 days complete the cycle of the potato bug generation; that 700 of the critters are the average product of one female, from which the family grows in the second generation to 245,000, and in the third to 85,700,000. There are not ciphers enough in any existing type foundry to express the number in the tenth generation.

SYRIAN WHEAT.

The *Sonora Independent* says:—A new variety of wheat bearing this name has made its appearance in our market. Only a small lot has been offered for seed, which was bought at twenty-five cents per pound. The wheat was raised by R. M. Chenoweth, and weighs sixty-four pounds to the bushel, and is said to be so prolific as to yield eighty-four bushels to the acre. This wheat greatly resembles the “Hungarian wheat,” so popular in some parts of California about ten years ago.

CALIFORNIA WHEAT.

D. L. Williamson, whose ranch is located near Salisbury's Station, in this county, says the Folsom *Telegraph*, last year obtained a new

kind of wheat from the East, called the Soft Siberian. He sowed half a pound, which yielded two hundred and forty pounds. This season he put in five acres, which it is believed will produce not less than seventy bushels to the acre. This is an enormous yield, and the new wheat is creating quite an excitement among the farmers in the vicinity. The yield of ordinary wheat on the same land is thirty bushels to the acre.

CORN FORAGE.

Persons who condemn corn fodder as “innutritious,” and of no consequence, are invited by Paschall Morris to consider the ways of a prominent dairyman, “whose butter is excelled by no other in Philadelphia market,” and who “pretty much sustained 58 cows on sowed corn from the middle of last July to the middle of October, and that, too, from the product of three acres.” He estimates that he took 90 tons of this “innutritious” substance from the space indicated, and he knows that his cows did not fall off in their milk during these three months of drouth, but that some increased the flow, and that the butter was fully up to the standard.

CRIMEAN WHEAT.

A correspondent of the Mass. *Ploughman* writes that the farmers in Central Iowa are feeling very well over the fact that one of their number, during the visit of the Duke Alexis at Chicago, received a present of nine bushels of Crimean Wheat, which has been well sown and is now promising a good crop. This farmer is an educated German, and was a classmate of one of the aids of Alexis. This wheat was intended for the Agricultural Department at Washington, but owing to the little “unpleasantness,” it was diverted from its destination, and will be highly advantageous to the wheat growing farmers of the State of Iowa. The weight of this wheat is seventy pounds to the bushel.

Useful Recipes.

A GOOD CEMENT.

The following has been tested for cementing wood, iron, leather, glass, paper, and almost all kinds of household materials: Best isinglass, half an ounce; rub it between the hands until it breaks down into a powder, put in a bottle, and put as much common acetic acid to it as will just wet the mass through, stand the bottle in some boiling water, and the paste will dissolve and be fit to use at once; it will be solid when cold, but is easily warmed up the same as before. Leave the cork out when warming, or there is danger of bursting the bottle.

TO PRESERVE PEGGED BOOTS AND SHOES.

If pegged boots and shoes are occasionally dressed with petroleum between the soles and the upper leather, they will not rip. If the soles of boots are dressed with petroleum, they will resist wet and wear well. The pegs, it is said, are not affected by dryness after being well saturated with the liquid.

PREPARATION OF WHITEWASH.

Whitewash is one of the most valuable articles in the world, when properly applied. It prevents not only the decay of wood, but conduces greatly to the cleanliness of all out-buildings, whether wood or stone. Out-buildings and fences, when not painted, should be supplied once or twice every year with a good coat of whitewash, which should be prepared in the following way: Take a clean, water-tight barrel, or other suitable cask, and put into it half a bushel of lime. Shake it by pouring water over it, boiling hot, and in sufficient quantity to cover it five inches deep. When the larking has been effected, dissolve it in water, add two pounds sulphate of zinc, and one of common salt. These will cause the wash to harden, and prevent it cracking, which gives an unseemly appearance to the work. If desirable, a beautiful cream color may be communicated to the above wash, by adding three pounds of yellow ochre; or a good pearl or lead color by the addition of lamp, vine, or ivory black. For fawn color, add four pounds of Turkish or American (the latter is the cheapest) — one pound Indian red and one pound common lampblack. For common stone color, add four pounds raw umber and two pounds of lampblack. This wash may be applied with a common whitewash brush, and will be found much superior, both in appearance and durability, to common whitewash. —*E.C.*

WATERPROOF GLUE.

The following is a good recipe for a very useful form of cement for wooden or other similar articles which are employed for holding

water or non-alcoholic liquids. Although the formula is not a very novel one, we know it to be useful, and likely to suit the requirements of some of our readers. It stands as follows: Alcohol (spirit of wine), one pint; sandarac, 1 ounce; mastic, 1 ounce; common white turpentine, 1 ounce; glue and isinglass, sufficient; water, sufficient. Dissolve the two resins—sandarac and mastic—in the spirit, and then add the turpentine to the solution. Make some very strong glue, and add to it a good pinch of isinglass. Now heat the alcoholic varnish until the liquid begins to boil, then very slowly stir in the warm glue. The amount of the liquid glue to be added is determined by noting the point at which, after thorough mixture, a magma or thin paste is formed, capable of being easily strained through cloth. When required for use, the strained mixture is to be warmed, and applied like ordinary glue to the articles to be united. A strong junction is effected, which is not destroyed by cold water, and only after a comparatively considerable time by hot water or ordinary saline solutions. —*British Journal of Photography.*

CURRANT WINE.

Wine can be made from currants of any kind, or all of them, but red currants are the best, and the wine improved with age. In using red currants, let the fruit be dead ripe—nearly ready to drop off, and be stripped from the stems. They should be picked when dry, and then spread for several hours, or even days, in the sun. They need not be washed, but all pieces of stems, leaves, or anything not a currant, should be assorted out. They can next be subjected to a pressure in a mill or press, but not pressed so much as to break the seeds, or a bitter taste will be imparted to the wine. The juice should be strained and put into a vessel large enough to hold an equal quantity of pure soft water; then to four pounds of this mixture add one pound of sugar, or a pound and a-half, “if a durable, sweet and strong wine is desired,” half a pound will do when the wine is for speedy consumption. Let the liquor stand until some months after fermentation; then rack off into a clean cask, or bottle. Rack with great care, so as not to draw off the settlings. If bottled, rinse the bottles first with water and then with brandy, and draw from the barrel through a goose quill, in preference to a cock—though why does not appear. The wine had better be filtered before the bottling. Fill the bottles up to the neck, and not higher; then cork carefully, and there will be not so much danger of bursting.

Before being bottled, however, several rackings are recommended, to avoid the after fermentation, which may break the bottles. —*Wine and Fruit Reporter.*

Correspondence.

THE ARMY WORM.

The following letter from our subscriber, Mr. Chalmers, we received too late for our August edition. We could only reply to it briefly on its receipt, as we did:—

Parma, July 28, 1872.

SIR,—I enclose you some worms in this box. Would you be kind enough to inform me what they are. Are they the army worm I have read so much about? They have destroyed thirteen acres of barley for me this summer. They eat the leaf and cut off the head. The field is low, principally black muck. They eat the grass along the fences as well as the barley. I have raised very large crops of grain on the same field. I never saw any of them before this year. The ground is nearly covered with them. I would like very much to have your opinion about them. Would it be advisable to burn the field over.

I remain, &c.,

W. CHALMERS.

[The insect enclosed to us by Mr. Chalmers is indeed the terrible army worm, so well known in the United States as a formidable enemy to the farmer. It is not so much here; but we have known it in the township of Delaware, where they made their appearance in vast numbers, and they there destroyed one half of a field of oats belonging to Mr. Hammond. We advise their extermination by burning over the stubbles or weeds if the devourers have left enough for the flames to feed on. Some farmers dig long ditches in the ground, into which they put straw stubble, and any thing combustible, and after a