

# AGRICULTURAL.

## Do Not Waste Bones.

The bones of fish, the bones of fowl, the large and small bones that are purchased with beefsteak and mutton, constitute the very best of food for fruit trees and grape vines, if the fragments are only placed where the roots can lay hold of them. Instead of allowing pieces of bones to be cast into the backyard, as food for stray dogs and strange cats, domestics should be directed to deposit everything of the sort in a small tub provided with a lid. As soon as only a few pounds have accumulated, we take the tub to some grape vine or fruit tree, dig a hole three or more feet long, a foot or two wide and not less than a foot deep, into which the bones are dumped, spread over the excavation, and covered with the soil. The more the fragments can be spread the better. But they should be buried so deep that the plow or spade will not touch them. The roots of growing vines or fruit trees will soon find the valuable mine of rich fertility, and will feed on the elements that will greatly promote the growth of healthy wood, and the development of fair and luscious fruit. Many horticulturists and farmers purchase bone dust, costing no less than two cents a pound simply to enrich the soil around and beneath their vines; fragments of bones are just as valuable as ground bones, although their elements of fertility will not be found available in so short a time as if the large pieces were reduced to small atoms. Nevertheless if large bones be buried three or four feet from a grape vine, the countless number of mouths at the end of the roots will soon dissolve, take up and appropriate every particle. When cast out of the kitchen door, bones are likely to become a nuisance; whereas if properly buried, they become a source of valuable fertility. Let every person who owns a grape vine or fruit tree save all the bones that pass through the kitchen, and bury them where such worthless material will be turned to some profit.—*Western Farmer.*

## Agricultural Legislation.

At a public meeting, held in Ancaster, Wentworth Co., a few days ago, Mr. Awrey the M. P. P., for the county thus referred to the agricultural legislation during the last session of the Ontario Legislature. An important measure for farmers was one connected with the spread of noxious weeds such as thistles, oxeye daisies, red weed and burdock. The Grangers petitioned for a measure to prevent the spread of these weeds, and such a measure has been passed. Each farmer must cut his weeds, and the pathmasters must prevent them from going to seed on the roads. An inspector can be appointed by the Township Council when one is needed to see that the provisions of the Act are carried out. An Act was also passed to prevent the spread of infectious diseases in horses and other domestic animals. The foreign market for breadstuffs is becoming precarious, and Canadian farmers must turn their attention more and more to the raising of stock. If once the people of Europe are told that there are diseases among Canadian cattle, a profitable market will be cut off. It is much better to take steps in time to prevent such disaster.

## Agricultural Items.

A writer in the *London Agricultural Gazette*, is of the opinion that the polled or hornless cattle are the elder type, and that the horned form is the intrusive modern style. A girl of strong green tea is said to be a specific for sheep poisoned by eating laurel. A farmer who has used this remedy many years says he has saved hundreds of sheep by it. Do not base swine feeding upon the idea that pigs will eat anything. They are, indeed, not very choice in their selection of food, but growth and health are best promoted when they are fed on a variety of food. *Vick's Magazine* says that the best preventives of mildew on roses are good drainage, high manuring, selection of strong varieties, proper pruning, and dusting with sulphur as soon as it appears. It is contagious, and some varieties are more subject to it than others. An Ohio farmer washes his apple trees every spring and fall with strong lye that will float an egg, and finds it to be sure death to the borers. He claims that he has not lost a tree since beginning this practice, although he has lost several previously. W. W. Danham of Grapevine Farm at North Paris, Me., has pretty thoroughly demonstrated his theory of out-door wintering of bees. Of fifty-three swarms of colonies that he commenced the winter with, he has only lost two swarms. He has now fifty-one lively swarms to commence the season of 1884.

The sewerage of the Town of Pullman is pumped into an aqueduct from a cesspool into which it flows from the houses, and through this aqueduct is conveyed three miles to a farm of sixty acres, where it is used for fertilizing purposes. Notwithstanding the cost of the pumping, irrigating, and draining systems used in the cultivation of this farm was \$80,000, the net profit on the land has been \$85,000.

It was found by careful trial at the garden of the New York Experiment Station, that the old and expensive method of growing celery in deep trenches, and with repeated "earthing up" as the plants grew, was in no way superior to the level culture method, with a single earthing to blanch the stems after they complete their growth. This is in accord with the common practice of our best gardeners at the present time, but is contrary to the teaching of the older writers on the subject.

In a late address, Prof. Wiley gave the result of his investigations to decide the question, "how far north may sorghum sugar industry extend?" He believes that the success of the sorghum sugar industry will not be found so far north as many of his friends had hoped, and many of its devotees prophesied. It is yet early to give a definite answer, but at present he inclines to the opinion that the isothermal lines for Sept., October, and November that pass through Cape May, N. J., should be considered the northern boundaries of successful sugar culture.

French gardeners says the *American Gardener* are quite whimsical about the manner of gathering their asparagus. They say that the neat asparagus knives advertised in the catalogues are intended for delicate people who are afraid of soiling their fingers; and the only proper way is to pick the shoots by

hand. They consider it quite important to break them off at the point where they are united to the root, rather than in the ground above this point, as we usually do. They remove a little earth about the shoot with the hand, they work the fore and middle fingers into the soil near to the point of attachment, when a slight pressure of the finger under the base of the shoot causes the latter to snap off clean at the root.

## Shade Trees—Planting, and After-care.

Trees that have grown in the open air, will do better than those from thick woods. In selecting those only should be taken that are perfectly sound; a dead spot, however small, will extend until it ruins the tree. Trees with short trunks and large thin tops should be chosen, avoiding such as divide into two nearly equal branches, for they will be very likely to split down. In taking up trees, every root should be secured to the utmost fibre as far as possible, and without splitting or bruising them, and the holes for planting them, should be large enough to receive the roots in their natural position. While out of the ground, the roots should be protected from the air and kept moist, and in setting them fine rich earth should be packed around all the fibres. Trees should be staked to prevent the wind from starting the roots, and well mulched to keep the ground moist and loose. A vicious practice prevails very extensively of cutting off the entire top. It is the death warrant of the tree. It may put out new branches and do well for a few years, but the wound will seldom heal; that will ultimately decay down into the centre of the trunk and the limbs will break off or die. This process, in its various stages, may be seen in a large proportion of the trees that have been treated in this way. If a trunk must be cut off, let it be just above a thrifty limb, whose growth will heal over the wound. If branches must be removed, they should be cut close to the trunk, great care being taken not to injure the bark or wood, the cut made smooth and covered at once with wax or paint so as to exclude the air. Shade trees are usually set to thick, from two to four times too many being put on the ground consequently, as soon as they have grown a little, they interfere with each other, and a struggle for existence commences, in which all suffer and symmetrical growth is prevented. Trees should never be allowed to exclude the direct sunlight from a house; to do so, is to make it unfit for a dwelling. To remedy this by pruning, will leave naked trunks covered with unsightly scars, too large to heal over, which will ultimately decay and kill the tree. Thinning out is but little better, for the trees that remain will be stragglers standing at irregular distances, with forlorn and badly shaped tops. Shade trees should be carefully watched, and all branches that start where they are not wanted, that will ever interfere with streets, walks, buildings, or other branches, should be promptly removed. Such branches are often neglected until their removal irreparably injures the shade tree. All dead limbs should be taken away at once. *American Agriculturist.*

## The Honolulu Fish Market.

A visit to the fish market of Honolulu on a Saturday afternoon, Winter or Summer, (for there are no seasons here, remember,) is a sight seldom elsewhere to be met. Situated on the street lying beside the still surface of the bay, it seems as if the fish had only to be angled for with the fingers from the piers in order to be caught, cleaned, sold, cooked, and eaten. Every variety of finned fish is to be seen in this market, pre-eminently the nutritious mullet. Fish-wives, fish-husbands, and fish-children barter the scaly merchandise from stalls or counters covered with fish and species. Nowhere else that I know of could vendors leave in parallel piles upon their tables with impunity gold and silver coins often amounting to scores of dollars. A good deal of chatting, joking, and bargaining accompany proceedings in this place of trade, the picturesque natives preponderating both as buyers and sellers, while all around is life, noise, flutter, and business eagerness. The scene reminds one of the Neapolitan fish market in the square where Masaniello organized his popular uprising and revolutionary revolt—that bold fisherman, king of but three days' reign. Fish is a favorite food of the Hawaiian at all times, which, with a bowl of poi, makes up his usual meal. Shellfish, shrimp especially, are sold for salads a la mayonnaise, but there is no native edible oyster. The oyster of the Pacific, anywhere I have ever been, even on our California coast, is nowhere equals our Atlantic Blue Points. Cheapspeaks, or East River bivalves, either as regards size, flavor, or subsequent epicurean satisfaction.

## The Age of the Newspaper.

Public attention is absorbed by the newspaper; and it is to the periodical press that the literary man owes both his salvation and his ruin. The large class of people who read simply to kill time, satisfy all literary cravings by drinking at the streams, clear or muddy, as the case may be, of their pet newspapers; and even the lighter class of stories appeal to them but seldom unless served up in long columns and sent through the postoffice. It is emphatically the age of the newspaper, and both author and preacher are rapidly finding themselves reduced to the choice between working for the periodical press and abandoning the field altogether. Of course, there are striking exceptions, but in the main this seems to us to be about the sense and substance of the whole matter. Literary men are as well off as ever, but they must adapt their methods of work to the times in which they live.

## An Interchange of Compliments.

An attache had made one or two mistakes in copying a dispatch which he took to the Ambassador for signature. "Mistakes may be made," said Lord Stratford, after pointing them out, "by the most careful attache; how much more by the most careless!" The high-spirited young diplomatist got exceedingly incensed, and told Lord Stratford that, although he was his Ambassador, he had no right to reprimand him for what was untrue, as he was not habitually careless. "You accuse me of untruthfulness!"—"D—your eyes!" exclaimed Lord Stratford. "D—your excellency's eyes!" retorted the youth. The Eltchi burst out laughing. Holding out his hand to him, he begged the attache to excuse the infirmity of his temper, and they shook hands most cordially.

# SCIENTIFIC GOSSIP.

## Miles of Railroad in the United States—Making Leather Waterproof—Instantaneous Photography—&c., &c.

There are 124,000 miles of railroad in the United States, or seven times as many miles as there are in the United Kingdom of Great Britain.

An announcement was made a short time since before the Linnæan Society of New South Wales by Mr. William Macleay that the total numbers of Australian fishes now amounts to 1,291 species.

An establishment in Bavaria for the manufacture and preserving of railroad sleepers is able to turn out 500,000 sleepers a year, which is about one-tenth of the number required annually for the maintenance of the German railroads.

There has lately been constructed by MM. Chailot and Gratiot, of Paris, a new tool to which they have given the name of the bi-radical drilling machine. The arm is jointed or hinged in the middle so that the drill can be brought to any point on the table without shifting the latter. Bevel gear transmits the power.

Cast-iron may be so hardened as to resist cutting by an ordinary file by the following method: When the iron is brought to a cherry-red heat, sprinkle some cyanide of potassium upon it, raise the temperature then little above red heat, and, lastly, dip in the tempering tank. Cyanide of potassium may be used for case-hardening iron also with decided effect.

For the first, time in the history of the Academy of Sciences, Paris, places have been offered by the Government to selected members to take part on a diplomatic commission. That learned body has recently received a requisition from M. Ferry to appoint three delegates to the international commission which is to meet in Washington on the 1st of October next to determine the choice of a first meridian.

When transplanting the strawberry, an expert forbids the removal of the runners, and recommends leaving six inches of them attached to each side of the plant. The end of these runners are then to be bent down and buried with the roots. Plants thus treated are provided with means for drawing nourishment at once, and will thrive in adverse conditions which prove fatal to plants stripped of their runners.

In making the fluid extract and tinctures of cinchona, arnic flowers, &c., Mr. Alfred B. Taylor has found it especially serviceable to use a portion of the finished preparation from a previous operation to macerate and partially exhaust the drug before applying the new portion of the menstruum; and as there is no limit to the quantity of finished preparation that can be used when necessary, it is possible to exhaust completely the drug operated upon.

Prof. Thompson, in a recent lecture, informed his audience that the magnetic pole is now near Boothia Felix, or more than 1,000 miles west of the geographical pole. In 1657 the magnetic pole was due north, it having been eastward before that year. Then it began to move westward until 1816, when the maximum was reached. This is now being steadily diminished, and in 1976 it will again point due north. Prof. Thompson says that the changes which will have been observed not only on the direction, but in the strength of the earth's magnetism, will show that the same causes which originally magnetized the earth are still at work.

For making leather water-proof the following receipt has been printed: Twenty-four parts oleic acid, 18 ammonia soap, 24 water, 6 raw stearic acid, and 3 tannin extract are thus incorporated. The oleic acid is first melted with the raw stearine, then the ammonia soap is added, afterward the tannin extract, and finally the water. The ammonia soap is obtained by treating oleic acid with ammonia until the smell of the latter is not perceptible after a prolonged stirring. By adding to the whole mixture a solution of two parts copper in six parts of water a deep black color is secured, admirably adapted for dyeing shoe leather.

The instantaneous photographs taken of various animals in motion have received marked attention from the Berlin Physical Society. It was seen on examining the several photographs separately that the conventional and customary representations of moving animals produced by artists were not always correct, and some of the pictures as photographed seemed to be impossible. A whole series of views of the different positions assumed by the horse when trotting, on being looked at through the stroboscope, gave instant proof, however, of their fidelity to nature. These achievements of Mr. Muybridge, of San Francisco, in photography have won for him a deservedly high European reputation.

Hitherto it has puzzled eminent surgeons to account for sudden death caused by apparently inadequate wounds in the heart, such as those made by the prick, without penetration even of a needle. Herr Schmey, a student of the Physiological Institute, Berlin, has, however, just discovered that when a needle pricks a certain small spot on the lower border of the upper third of the septum cordis, quite instantaneously the movements of the heart are arrested and forever set motionless in death. "It is now the task of anatomical investigation," says Prof. Kronecker, who verified the discovery of his pupil, Herr Schmey, and communicated it to the Physiological Society of Berlin, "to demonstrate with accuracy this vital centre, the existence of which has been proved experimentally."

Flints, including chips and cores and a large tomahawk weighing four pounds, from Ugi, collected by Dr. H. B. Guppy, of the British Government vessel *Lark*, were lately exhibited and described by Dr. Liversidge before the Royal Society of New South Wales. Dr. Liversidge remarked that some years ago Mr. Brown, the Wesleyan missionary, brought from New-Britain a soft white limestone which was quite undistinguishable from chalk, not only physically but chemically, and pointed out that this discovery of flints afforded another very strong proof of the probable presence of true chalk of cretaceous age in the South Sea Islands. The flints which were shown before the society possesses all the characteristics of those from the chalk of Europe, and cannot by mere inspection be distinguished from them.

There are lots of people going around grumbling, and half sick at the stomach all the time; who might be well and happy, if they only used Dr. Carson's Stomach Bitters occasionally. It is a splendid Blood Purifier. All Druggists 50 cents.

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