

On the Farm.

ORCHARD MANURING.

Grain growing is the simplest kind of farming. With corn, for instance, the object is generally to get the highest yield of grain possible; the farmer breaks up his land, fertilizes liberally, and keeps the soil constantly mellow and with a shallow earth mulch, up to well developed tassels. All tillage then stops, as the plant no longer draws on the soil for sustenance; in fact, growth of stalk on leaf must be checked and this is accomplished by abandoning the earth mulch and drying off the soil. At every stage of the work a definite object is in view, and the shortest means toward that object adds to the success of the operation.

In fruit culture precisely the same means are necessary to success; but the problem is a little more intricate though not at all difficult. Fruit is developed largely from fruit buds formed the preceding season; consequently, the orchardist is constantly working one season ahead of his crop. Orchards require a free supply of moisture up to midsummer, after which the supply should be checked in order to mature wood and favor development of healthy and abundant fruit buds for the next season's fruit. The fertilizer problem is a most important one. A well nourished orchard, like a well nourished man, is as nearly immune as possible. If an orchard has been bountifully fed the fruit buds will naturally show the benefit, but the gain may be more than lost by niggardly feeding the following year.

This is one of the evils of the tenant system of farming. A well nourished orchard will make liberal provision for fruiting one year ahead, but if the supply of plant food is cut off the following year, or materially reduced, these fruit buds will produce at the expense of the tree. Fruits are largely developed by reserve supplies of plant food, but this reserve supply must be maintained regularly; it is not unlike a bank deposit, which must be constantly replenished if drawn upon. Trees may continue to bear for many years with starvation treatment, but the orchard itself has received irreparable injury through vitiation — giving of its life for its product.

Orchards draw more heavily on the soil than is commonly supposed. A fair crop of apples, for example, demands each year about 60 pounds of nitrogen, 70 pounds of potash, and 20 pounds of phosphoric acid per acre. Fair crops of wheat or corn remove as much more nitrogen and phosphates but considerably less potash. In fact, potash is the important ingredient in fruit culture. It effects the transference of starchy matters and builds up the pulpy substance of fruit; also, is the essential agent in fixing both flavor and color.

Farm yard manures are unsafe on orchards, unless fortified with potash; because, the large relative quantity of highly available nitrogen is apt to promote the growth of wood beyond the ability of mineral fertilizers to properly mature. An excess of nitrogen also tends to produce leaf buds rather than fruit buds. The mineral fertilizers may be applied to orchards by simply broadcasting; in very rolling country, it is best to work in the soil if washing rains are common. Once incorporated with the soil there is little danger of loss through drainage.

A moderate application of fertilizer is 500 pounds per acre of a mixture containing nine per cent of available phosphoric acid and ten per cent of potash. If grass is grown, feed much more liberally. It is questionable practice to grow grass in orchards, but if it must be done, keep clipped, or pastured, close until the fruit set; after which, the free use of water by the grass may assist in maturing not only the fruit and new wood, but also forward the formation of fruit buds.

BEE-KEEPING.

Nerve is a most important factor in handling bees, and while they should be smoked into subjection whenever they need it, they never should be smoked to excess, or just simply for the fun of it. Accordingly, it is valuable instruction to the beginner to visit occasionally some expert beekeeper, and see for himself how the intricate things are done. Why? Bees require so much looking after and handling. It is sometimes possible to take combs of brood from the colonies to build up weaker colonies in the spring, and often to take combs of brood and adhering bees from strong ones for making artificial colonies. Then all the queen cells but one may have to be cut out to prevent after swarms, after the prime swarm has been secured; while again, queen cells may have to be removed from the combs of colonies that have swarmed, to supply queenless ones with queens when there are no laying queens to give them.

Bees should not be handled too much, however, neither should the number of the colonies be increased other than by natural swarming. Artificial swarming is work only for the profes-

sional. If the beginner attempts it, he is pretty sure to lose all, or nearly all, his bees, and consequently throw up the business sooner or later in disgust.

The best time to start in with bees is during the spring, not earlier than April and not later than May; and when the colonies are received, they should be placed at once on the identical spot where one expects to have them remain, for changing bees around to different locations on the premises never agrees with them, and frequently will ruin them.

Before going into bees, though, one should consider whether the conditions of his locality are adaptable to them. Some places afford good bee pasturage, while others do not. It is not strictly necessary that bees have pasturage very near by, but, all the same, they will do better when it is not too far away. A half mile is the best radius for them to work in, albeit they will often work at good advantage on anything within a mile and a half or two miles. If one is so situated that he must depend mainly on orchard trees and garden flowers for pasture, my advice is that he let bees alone.

BEE CULTIVATION.

Bees and mangels may be planted on the same land year after year more successfully than most farm crops. The tendency to reduce yields that is usually observed when a crop is grown on the same land for a series of years is largely offset by the effect of the thorough tillage that the beet crop requires. If this tillage is properly done, it constitutes the very best preparation for another crop. If no weeds were allowed to go to seed, the crop can be tilled cheaper next year than this. Of course the fertility must be maintained by the use of barn-manures or commercial fertilizers. If the former are used there is danger of introducing weed seeds that may make extra labor; if the latter, the organic matter in the soil will gradually decline, and it will sooner become necessary to grow a crop of clover or resort to green manuring to restore it.

Beets appreciate a deep soil. Deep ploughing and subsoiling in the fall with ordinary ploughing in the spring will be desirable fitting. Barn-manure may be applied at any time it is available; only do not plough it under deeply unless it has already lain on the surface for some time to leach into the soil.

PREPARATION FOR CLOVER.

Usually there is not much difficulty in securing a stand of clover, but owing to a diversity of soils, there are occasionally small areas upon which the young clover plants fail to grow, says a writer. To guard against this failure I have for several years hauled the manure direct from the horse stable and scattered it thinly over those places. Straw is used liberally for bedding, and during the winter enough manure is made to cover several acres. The soluble parts of the manure are washed into the surface soil where they are easily available for the young clover plant. The straw serves as a mulch, affording considerable protection should an early drought follow. Clover haulm can be used the same way, thereby getting the benefit of any seed remaining in it. Whatever the method employed we cannot be too thorough in the preparation for the clover crop.

POWER IN PIANO PLAYING.

The amount of power expended on playing on a piano has recently been figured out in a way which, if not altogether accurate, is at least interesting. Commenting on the statement that it really requires more force to sound a note gently on this instrument than it does to lift the lid of a kettle, says Woman's Life, it is easy to verify it if one takes a small handful of coins and piles them on a key of a piano. When a sufficient quantity is piled on to make a note sound they may be weighed, and the figures will be found to be true. If the pianist is playing fortissimo a much greater force is needed. At times the force of six pounds is thrown upon a single key to produce a solitary effect.

With chords the force is generally spread over the various notes sounded simultaneously, though a greater output of force is undoubtedly expended. This is what gives pianists the wonderful strength in their fingers that is often commented on.

A story used to be told of Paderewski that he could crack a pane of French plate glass, half an inch thick, merely by placing one hand upon it as if upon a piano keyboard and striking it sharply with his middle finger.

One of Chopin's compositions has a passage which takes two minutes and five seconds to play. The total pressure brought to bear on this, it is estimated, is equal to three full tons. The average "tonnage" of an hour's playing of Chopin's music varies from twelve to eighty-four tons.

THE WAY OF A WOMAN.

She—Then I got right mad and told him what I thought of him.
He—What did you say?
She—I don't remember.
That's queer. You ought to know what you think of him.
Oh, I know what I think of him now, but I do not remember what I thought of him just then.

HIS AGONY.

Harry—How d'ye fare now?
McLubberty, with his hands clasped over his abdomen—Beggarr! Oi am in sich pain that Oi can't do justice to ut unless Oi can git somebody to hilt me achel! That's how Oi feel!

THE NEWS IN A NUTSHELL.

THE VERY LATEST FROM ALL THE WORLD OVER.

Interesting Items About Our Own Country, Great Britain, the United States, and All Parts of the Globe, Condensed and Assorted for Easy Reading.

CANADA.

The twentieth century begins January 1, 1901.

Vancouver Catholics will build a \$60,000 church.

Stratford offers \$95,000 for the local water-works plant.

J. T. Middleton has been appointed sheriff at Wentworth.

There will not be any military tournament in Toronto this year.

They have already begun to teach the Doukhobors English at Winnipeg.

A large vein of hematite-iron has been discovered to the north of Wabigoon.

Winnipeg already has signs of great activity in building circles and real estate during the coming summer.

The temperance people of Hamilton will petition the City Council to reduce the number of tavern licenses from 75 to 50.

The Council of Arts and Industries at Quebec has opened a night class for the making of patterns of boots and shoes.

Hon. Col. McMillan, Provincial Treasurer of Manitoba, has returned to Winnipeg from the Southern States, restored to health.

Henderson's directory for Winnipeg places the population of Winnipeg at 49,000, an increase of 4000 or 5000 over last year.

J. E. Bayden, master mechanic at the Trail, B.C., smelter, has been killed by an electric shock, while repairing the switchboard.

T. G. Owen, a young Ottawa, 22 years of age and son of Mr. Owen, accountant of the Marine Department, is reported to have made a fortune in the Yukon.

The Cataract Power Company has declined to fix the price for power for Hamilton, but offers to give cheaper electric light if a ten years' contract is signed.

Complaints have reached Ottawa of the extensive importation of liquor into the Yukon. The Ottawa authorities are leaving the issue of permits to the Territorial authorities.

Owing to the gripe epidemic, the Kingston penitentiary hospital is so overcrowded the new south wing had to be turned into service to accommodate the convict patients.

Mr. George Hague, who has managed the affairs of the Merchants' Bank for twenty-two years, has handed over his duties to the joint manager, Mr. Fyche. Mr. Hague is still attached to the bank in an advisory capacity.

Ald. Roy of Montreal declares that an attempt was made by two civic employees to bribe him in connection with a recent appointment by sending to his house twelve promissory notes for \$50 each, and requesting him to accept the money for his vote.

New Westminster has a balance of \$51,000 on hand of charitable funds after all distress occasioned by the great fire has been relieved, and the city now has a bill before the Legislature of British Columbia to empower the corporation to spend the money in public works and thus provide work for the needy.

Several deaths have occurred recently in Kingston Penitentiary from spinal meningitis. Medical authorities have recently discovered that the disease frequently originates from a germ inoculated into the system through imperfect ventilation or the unsanitary condition of public institutions. Mental worry is frequently the cause of the complaint.

Seventeen of the convicts concerned in the recent mutiny at the Kingston Penitentiary have been committed to the prison of isolation for one year, and fifteen of them have had their rights taken from them for one month. It is also said that all the convicts concerned in the revolt will lose their remission or good-conduct time.

The customs department is completing arrangements for the transit of goods to the Yukon over the White Pass Railway in bond. Trains are now running from Skagway to nearly the Canadian border, and as soon as the line reaches Canadian Territory a sealed car will be placed on the route to carry Canadian bonded shipments from Skagway across the disputed trip.

The returns of British imports of dairy produce last year show that out of a total of 2,287,166 cwt. of cheese imported, Canada sent 1,431,781 cwt., the United States 474,995 cwt., and Holland 292,825 cwt. On all qualities Canadian cheese runs from 2 to 3 shillings higher than American. Our exports of butter to the British market for the year were 150,865 cwt., as against 100,402 cwt. in 1897, and 88,357 in 1896.

GREAT BRITAIN.

The Earl of Lindsey is dead.

Lord Hallam Tennyson, son of the late poet, has been appointed Governor of South Australia.

The Duke of York will command the British squadron which will receive the American ships in June.

The Earl of Elgin, former Viceroy of India, has been appointed a Knight of the Garter in place of the late Duke of Northumberland.

What would unarmed civilization do against armed barbarism? is one of Lord Roberts' comments on the Czar's disarmament proposal.

The strike of the Clyde seamen has

collapsed, the shipowners having been able to find crews for their vessels without difficulty at current rates.

It is announced in London that a Chinese 5 per cent. railway loan of \$57,500,000 has been arranged, specially secured on Chinese railways.

The Duke of Devonshire and Baron Nathaniel Meyer de Rothschild have subscribed £10,000 each to the Cambridge Endowment University fund.

The will of the late Baron Ferdinand de Rothschild left \$25,000 to "my friend Herbert Wilson." There are two in London and the executors are in a quandary.

There is talk in London of putting the practice of spiritualism on a similar footing with the practice of medicine, and to provide for the formal instruction and licensing of mediums capable of conducting orthodox seances.

There is not the slightest truth in the rumoured engagement of Princess Victoria of Wales to Prince George of Greece, and the fact that according to the Orthodox Greek Church first cousins are not allowed to marry would in any case make such a union impossible.

Lady Randolph Churchill is about to start a magazine on new lines. It will be sumptuously bound, and sold at a guinea per copy. Her son, Hon. Winston Churchill, will assist her in conducting it, and the list of contributors will include Emperor William and other royal personages.

Henry White, the American Charge d'Affaires, his wife and daughter, are the guests of Earl Cadogan, Lord-Lieutenant of Ireland, in Dublin, and will attend a state levee and drawing United States representative to attend a court function in Ireland.

The Salvation Army has been successful in getting some of their goods manufactured in England accepted by the London office of Public Works. A start has been made by supplying the various departments of the Whitehall Government offices and the House of Parliament with safety matches made by the army.

A Liverpool reporter has unearthed a centenarian—Mrs. Kenmuir, aged one hundred and seven—whose husband is eighty-four. She attributes her age to a strict conformity to the teachings of the Bible. The lady's family is noted to be one hundred years of age, and her uncle died when he was one hundred and fifteen years old.

Electricity will take the place of steam on the Manhattan Elevated Railroad, New York.

The North Dakota law now requires a residence of one year before a divorce can be secured.

Thomas Sprague is dead at Rossville, Staten Island, of hydrophobia. He was bitten by a dog a month ago.

The North-western Chronicle, of St. Paul, says Archbishop Ireland, now in Rome, is to be made a cardinal.

A party of German settlers, numbering 100, will leave Indiana to settle in the North-west Territories in April.

Sixty-seven cadets at Chester, Pa., were poisoned, presumably from eating badly preserved cold-storage turkey.

Rev. Dr. Charles Seymour Robinson, the Presbyterian divine and well-known writer of hymns, is dead at New York.

A trained bird belonging to the singer, the late Miss Emma Thursby, New York, and valued at \$10,000, is the latest victim of the grip in Gotham. It spoke in five languages.

The Medico-Legal Society of New York has adopted resolutions urging the release of Mrs. Maybrick from prison in England, and has appointed a committee to memorialize the Queen.

Because of continued failing health Mrs. J. Myers, a wealthy visitor from Pittsburgh, aged about fifty, committed suicide by jumping into the ocean from the end of Young's pier, Atlantic City, on Monday.

Snow is reported as general throughout Central and Southern Georgia and Alabama. In Atlanta nearly four inches fell on Saturday. Three inches has fallen at Columbus and other points in South Georgia, and about two inches at Macon and Montgomery, Ala.

Tom Salmon, former president of Red Lodge Miners' Union, who killed Superintendent Connor, of the Rocky Fork coal mine, for discharging him, was hanged at Red Lodge, Mont., on Friday. Salmon was a well known labor leader in several North-Western States.

Thomas Reynolds, of Belleville, N.J., a small town near Newark, became a raving maniac on Tuesday and ran through the streets with a knife in his hand striking at every one he met. Most of the people escaped from him, but three were seriously injured. They are Mary Coyne, whose skull was fractured and who will probably die, and two girls named Manning and Flanagan, both dangerously injured.

At Urbana, Ohio, the jury in the suit brought against Champion County to recover \$5,000, damages for the lynching of "Click" Mitchell in June, 1897, returned a verdict against the plaintiff. The suit was brought under what is known as the anti-lynching law of the State, which provides that the sum of \$55,000 damages shall be paid to the next of kin of a person meeting death by mob violence. The case is the first of its kind.

GENERAL.

Rioting is resulting from widespread distress among the natives of Barbadoes.

Twenty children are reported to have been drowned by a nice disaster at the Village of Warpuhnen-Boirhein, East Prussia.

Owing to famine in Persia, murder and highway robbery is frequent, and the Shah has had his body guard increased.

There has been a recurrence of land-

slides at Airolo in the Alps, and the St. Gothard tunnel is threatened with destruction.

A plot for the wholesale murder of policemen has been discovered at Leghorn, near Florence. Many Anarchists have been arrested.

A civic employe at Paris named Oasins found a package of \$100,000 worth of securities in the main sewer, and gave it up to the authorities.

There are 40,000 beggars, 10,000 of whom are soldiers, in the City of Madrid, and the authorities fear a breakdown of lawlessness and crime.

The first seals of the season have been observed off Cape Bonavista, Newfoundland. The sealing steamers are preparing for their annual hunt.

The German Government is trying to stamp out the adulteration of wines in Alsace. A wine merchant has been fined \$2,380 for exporting adulterated wines.

Smallpox is increasing at Ponce, Porto Rico, where 150 cases are under treatment. The military government will immediately inaugurate compulsory vaccination.

Carlists in Spain complain that Don Carlos allowed a great opportunity to slip when, six weeks ago, the country was filled with dismay and indignation at the price of defeat. He might have had a hope of success then, but now the people realize that salvation is not to be had that way.

The Germans in Hayti have organized a society for the purpose of raising money to send to Germany to build war vessels to increase the effectiveness of the German navy. It is understood that subscriptions of a similar character are being formed all over the world, including the United States, for the same purpose.

Switzerland has as usual, been spending the winter in reckoning up the profits of the holiday season. Last year shows a favourable advance, the total number of tourists having amounted to 2,300,000, while the gross receipts of hotel keepers, as far as they can be ascertained, reached close upon \$25,000,000. Of this sum about \$7,000,000 was expended on jewellery, knick knacks and "souvenirs de Suisse."

BIRDS OF ILL OMEN.

They Have Returned to France at a Critical Period.

The gay ladies of France, and, indeed, many of the sober-minded statesmen, have lately been greatly upset by the appearance of the fatal crow, which has appeared only three times before, and each time just before some dreadful calamity has swept over the country.

Its first appearance occurred one October morning at the Petit Trianon, at Versailles, in 1785, and that time it flew right up on to the window from which Marie Antoinette was leaning, and seemed to ask for food. The Queen had a biscuit in her hand, and gave it to her sinister visitor. It then flew away crying, "Caw! caw!"

From that day a dark shadow seemed to rest over the formerly spritely and gay Marie Antoinette, and was only swept out of her life by the guillotine.

The same bird is said to have flown wheeling around Napoleon just before the battle of Waterloo, and when the Emperor saw it he turned pale and seemed to lose his nerve. Again it appeared just before the siege of Paris by the Germans in 1870-71, and swept down and gorged itself on the carrion in the city.

Having always appeared prior to some calamity, and appearing again after some twenty odd years, the whole of France seems on the eve of a national upheaval, it naturally seems to forebode a dark future, and in order not to add more distrust and confusion to the present situation, the authorities have ordered that no mention of it shall appear in any of the papers.

GIRLS IN GREECE.

Girls in Greece are betrothed when they are mere infants. In that country it is a disgrace to be an old maid. Marriages for love are unknown, but a Greek father is very stern in regard to a young man having ample provision to support a wife. A girl's dowry consists of household furniture and linen rather than money.

Although most Greek girls are naturally very pretty they begin to paint and powder from a very early age—the cheeks bright red, the eyebrows and lashes deepest black and veins delicately blue. The result is that they are withered old women at 40, and thus nowhere are uglier females to be found than beneath the blue skies of this classic land.

Every Greek family who can afford it keeps a French nurse or maid, for French is almost universally spoken in society. Painting and music are quite unnecessary, but girls are carefully trained in dancing.

The largest "sacred oxen" of Ceylon never exceeds thirty inches in height. Strangers are much impressed by the sight of four of these little oxen, harnessed to a two wheeled cart, laden with merchandise and with a proud driver comfortably seated behind them.

A mean trick was played upon a patient by a New Orleans dentist. Both admired the girl. The victim was in the dentist's chair, and his jaws were scientifically held apart with patent plugs, to facilitate dental operations. Then the young lady was brought in and the man with the yawning mouth tried to greet her with a welcome smile. She deemed him a gaping idiot, and advised him to close his mouth, lest he should take a fall. The dentist is now the favored suitor.