FARM·FIELD AND GARDEN

ADVANTAGES OF CLOVER.

Clover is the chief crop upon which the farmer relies for improving or maintaining the fertility of his land. Other crops are sometime substituted, but never with such good effect as clover. There are many ways, however, in making use of clover as an improver of thesoil, which are attended with different degrees of benefit, and with which much depents upon the locality, distance from market, etc. There are certain principles which are alike applicable in all cases. The roots of clover are the most important part of the plant, so far as the improvement of the land is concerned, not that the tops are any less valuable (as there are many other plants which for bulk and quick growth above ground may be said to excel it), but which, when turning under with a view of improving the land, are far less beneficial in their effects. Buckwheat, for instance, has a much more rampant growth of top, but the effects of this, when turned under, are not nearly as good as those of clover, for the reason that buckwheat and such annuals do not penetrate the sub-soil and bring up therefrom and deposit near the surface the mineral matter contained therein, which is so essential to the successful growth of plants, their growth being due only to what the roots take from the ordinary surface soil. In other words, the roots of the clover plant bring up fertilizing matter from the deeper subsoil, which the roots of buckwheat and such other annual plants cannot reach.

Clover should never be turned under until it has reached its largest growth, as well below as above ground. For this reason the old practice of

PLOWING IT UNDER

when in bloom is objectionable, for although the growth of the stem and leaf is then at its minimum, the roots have not then completed their growth. But by cutting the first crop, a second growth is the sooner induced, which although much less in amount, secures an enormous increase in the growth of the roots, thereby placing it in the best condition of turning under. The better way, then, to secure the full benefit of clover in the improvement of the soil, is to allow it two full seasons of growth before turning it under, as the plant is biennial, more or less of the roots drying out at the end of the second year, thus causing the weeds to spring up and take their place, leaving the after condition of the field as a damaging offset to any good effected by the growing of the clover, but when the first of the second year's crop is taken off the second starts as soon and makes so strong a growth as to completely smother the weeds. It has been used for two seasons as hay, as the roots will then attain their full development and be richest in fertilizing elements. What the farmer who wishes to avail himself of the full advantage of this crop should do is to turn the sod under when full of roots, preparatory to putting the land in corn and wheat, oats and wheat, as the case may be, and then seed down to clover again. Cut the clover two years for hay, or pasture it, which is nearly the same thing, then plow under the sod as before, and so on, turning under good clover sod every three or four years until the land is completely renovated, applying at the same time whatever barnyard manure can be spared to hasten the process.

COOLING MILK.

There are two ways of cooling milk that must be kept over night before being sent to the cheese factory. One is to give it a good stirring, and the other is to set the can in cold water. The best way, however, is to combine the two methods. The object of cooling milk is to prevent it souring and souring is the result of the development of bacteria. Cooling milk by stirring it and exposing it to the air tends to prevent souring, but it also exposes the milk to the danger of being contaminated with bacteria, always present in the air, which causes bad flavors in the cheese. This fact emphasiles the importance of stirring the milk, where that process is necessary to cool it, in pure air. The air a few feet from the barn is generally the most heavily laden with germs, and, consequently, the milk should not be exposed any more than is necessary near the barn, but should be strained and otherwise handled some distance away, and in a place where currents of air do not carry contamination from the barn to the milk.

Cooling the milk with ice or water would be the better way, where ice or cold water could be had, as this exposes the milk less to contamination. In such cases sufficient stirring could be given to cool all parts of the milk as quickly as possible. Aerating might also be practical where ripe turnips or other strong-smelling foods are given the cows, but the use of such food is not to be commended. Stirring the milk for an hour or more just over the barnyard fence, or anywhere near the barnyard, cannot be too strongly condemned, as it adds to the cheese-maker's troubles and tends to injure the quality of all the cheese made at the factory, by carrying to it germs that cause bad flavors and pinholes in the finished product.

USES FOR COAL OIL.

Coal oil, which is always at hand when needed, is an invaluable article in the stable, garden and many other places on the farm, but it is of the greatest benefit in the poultry houses. When mixed with lard and applied to fowls afflicted with scaly leg it is a specific and will invariably result in a cure. Sprayed on the roosts, walls and ceilings of the houses and coops, it will destroy the lice and pests that make life miserable for the fowl and render them unfit to return a profit to their owners. By adding one part of olive oil to two parts kerosene and injecting it into the nose and mouth of fowls suffering from a cold, a cure will be effected. These and many other uses can be found for diseases of the flock, and as the article is cheap it can be used freely. The lower grades, which sell for lower price and are not satisfactory as illuminant, will be found fully as good for poultry yard uses as the refined article.

BRITISH IN THE ANTARCTIC.

Further Information With Regard to the Positions Reached.

Ever since the relief steamer Morning brought home news of the British explorers in Victoria Land, geographers have been much perplexed by the fact that though the latitudes attained were given, no clear information was printed with regard to the longtitudes reached. It was, therefore, impossible to mark on a map the positions attained by the explorers. Figures for the longtitude of Scott's brilliant sledge journey were printed, but no one knew whether east or west longtitude was meant.

On June 10 last Sir Clements Markham, president of the Royal Geographical Society, gave a lecture in London on the work of the expedition. He was able to supply the missing information. His discourse did not contain much fresh news, but some supplementary papers from the expedition and also a number of private letters enabled him to supply the missing longitudes and give a few more interesting facts.

Commander Scott, on his sledge journey, which occupied ninety-four days, reached latitude 82 deg. 17 min. S., and longtitude 163 deg. E. This information shows that the eastern coast line of Victoria Land, which he followed, stretches almost due south of Mount Erebus, his starting point, with only a very slight deflection to the east.

Beyond his furthest point he saw a range of mountains extending as far as he could see in a south by east direction. This seems to show that beyond the point he attained the coast line trends a little more to the east than along his line of march.

Scott must have traveled over 980 statute miles on this very successful journey. His most southern point was only one mile further from the South Pole than the record with relation to the North Pole, which Parry made in the Arctic, which for many years stood as the nearest approach that explorers

HAD MADE TO THE POLE.

The position where Scott's ship, the Discovery, made its winter quarters and where at last accounts it was frozen in the ice is latitude 77 deg. 50 min. S., or more than five hundred miles further south than any ship ever wintered before.

Before the Discovery put into her winter quarters Scott skirted the great ice barrier to the east. The furthest easterly point he reached was 152 deg. 53 min. W., where he found an extensive land mass, to which he gave the name of King Edward VII. Land. The land was surmounted by heights rising to 2,000 and 3,000 feet above the sea.

The second great sledge journey of the expedition was that of Mr. Armitage, who, according to Sir Clements Markham, reached longitude 157 deg. 25 min. E., and latitude 77 deg. 21 min. S. This information shows that he penetrated Victoria Land almost due west of the winter quarters of the Discovery to a distance of about one hundred and forty-two miles from the ship. As far as he could see, land still stretched away to the west of this turning point. It has not been proved by this journey that the east and west extension of Victoria Land is any wider than it has been found to be on the northern coast of the land, but the land, at any rate, seems to maintain its east and west extent for an important distance to the south. Armitage found the ice cap thousands of feet in thickness in the interior of the land and he reached an altitude of 9,000 feet.

The additional information here given, though fragmentary, enables us to tell the approximate extent of new land reached. No further information will be forthcoming until the expedition returns home with material for its detailed report.

Funny how quickly the man who prefers a pipe to a cigar will lay down the pipe to clutch the gratuitous cigar whenever one is offered him.

HER CHILDREN'S COMRADE

COUNTESS OF MINTO DOESN'T KEEP THEM APART.

Rideau Hall a Pleasant Place for the Governor-General's Youngsters.

People who complain of the so-called American method of dealing with the rising generation may be interested to know that it is that pursued by the Countess of Minto, wife of the Governor-General of Canada, writes a correspondent of the New York Sun.

Time was when it was almost impossible to see the children of a Governor-General, if he had any, but Lord Minto's children are always in evidence. They and their parents are the jolliest kind of comrades, and are constantly together. The children share in the pleasures of their elders and, except for functions of state, are present at all social affairs at Government House. They are prominent figures in the private theatricals which are a favorite form of entertainment under the present regime, and the older ones appear with their parents at the theatre, at skating carnivals and at various other places.

So much has this been the case that there was, for a time, some doubt in Ottawa society as to whether Lady Eileen Elliot, the eldest member of the viceregal family, was really "out." There had been no formal "coming-out" ceremony, and the fact that she was seen a little more frequently than in the past was not considered sufficiently conclusive.

The Earl and Countess seem more like an elder brother and sister with their children than like father and mother. The Governor-General can romp like a school-boy in the privacy of his family, and Lady Minto is the most sympathetic of confidants for childish troubles.

Lady Minto thinks that nothing is too good for her children, and in spite of her numerous social duties and the burdens of public work, which she has voluntarily assumed, she finds time to attend personally to their

DRESS AND EDUCATION

and everything pertaining to their welfare. Three of the best and pleasantest rooms at Government House have been set apart for their use, and all sorts of pleasant entertainments, of which the other children of the Canadian capital often get the benefit, are constantly being planned for them.

Christmas, though celebrated quietly with only the household and house party, is a great occasion and much trouble is taken to make the advent of Santa Claus interesting. One year the great ballroom was converted into a winter garden, with trees that bore the presents, real rocks and any quantity of frost and snow. On another occasion the good ship Santa Claus, ablaze with lights from stem to stern, cast anchor at Port Elliot and proved to have all sorts of wonderful things in her hold.

Whatever may be the effect of this system of education generally, it has certainly, in the case of the young Elliots, produced none but the most desirable results. They are absolutely simple and unassuming young people, and appear to be quite unconscious that their position in life is going to be any different from that of ordinary mortals. Lady Eileen, who came out last season, is immensely popular in Canadian society, and of Lord Melgund, the eldest son, who is about 12 years old, many pretty stories are told. One of these dates back to the great Ottawa fire, when his small lordship attracted some attention by giving his boots to a little fire-sufferer who had the misfortune to be

WITHOUT FOOTGEAR.

"I did not need them," he explained to the members of his party who had lost sight of him for a few minutes. "I am going to drive home, and the other boy hadn't any."

There is one other son, the Hon. Esmond Elliot, aged 6 or 7, and two daughters, who come between Lord Melgund and Lady Eileen. Lady Ruby is just a little younger than her elder sister and will probably be introduced with the latter to English society next year. Lady Violet is a little girl in her earliest teens, who is usually regarded as her father's favorite.

As a housewife Lady Minto gives careful attention to the most prosaic details of housekeeping and is an excellent manager.

"The new Governor-General's wife knows the price of everything," complained an Ottawa tradesman soon after the arrival of the Mintos in Canada, "and she has ordered some of my things sent back to me because she thinks they are not good. The others let me send down what I liked and charge what I liked."

And then the aggrieved dealer went on to represent that the wife of a Governor-General should not do those things. The country paid his Excellency a good salary, he argued, and had a right to get some of it back. Accordingly, it was the duty of the Governor-General's wife to stay in the drawing room and leave domestic matters to the steward and the Comptroller of the Household, who, being men, would be more agreeable to deal with.

Lady Minto does not look at things in this way, and as her husband is poor for his position in life, her thrift is no doubt very useful. But however great her wealth, she would be no different, and however limited her means, she would always make

A HOME BEAUTIFUL.

Lady Minto's public work has not attracted so much attention as that of her predecessor, the Countess of Aberdeen, but it is perhaps not less important. She does things in a different way, but she works very nearly as hard and to quite as much purpose. Her chief public interest in Canada has been the Victorian Order of Nurses, and the organization owes much to her untiring exertions in its behalf. Through her efforts numerous cottage hospitals have been established in the sparsely settled districts of Canada, and she is now engaged in getting the order endowed at an expense of $125,000. For education, particularly manual training and domestic science, Lady Minto has also done much, and it is mainly throughly her efforts that the graves of the Canadian soldiers who fell in South Africa are now being located and marked.

In appearance Lady Minto is strikingly youthful and so like her eldest daughter that they are often taken for one another. She is tall and slight, dresses artistically and always wears and has flowers about her. Her manner has a charm which has made her one of the most popular of British Vice-Queens. She is better known and more popular in the United States than perhaps any of her predecessors. She has visited frequently in Washington and New York and has entertained many Americans in her Canadian home.

TROUBLES OF EX-CHIEF OF POLICE

COULD NOT STAND BEFORE DODD'S KIDNEY PILLS.

Mr. Charles Gilchrist had Diabetes for Years—Dodd's Kidney Pills Cured Him.

Port Hope, Ont., July 20 (Special)—Mr. Charles Gilchrist, Chief of Police here for fifteen years and afterwards Dominion Fishery Overseer, is always willing to add his testimony to the volume of proofs from all parts that Dodd's Kidney Pills never fail to cure any form of Kidney Disease.

"I am a healthy man. Dodd's Kidney Pills have done the job," is the way Mr. Gilchrist puts it. "When I first started to take Dodd's Kidney Pills I was in an awful state. I had been a sufferer from Diebetes and Kidney Disorder for ten years. My urine was of a dark bricky color and I would suffer something awful while passing.

"I tried everything and tried the doctors but could get no help till I was advised to use Dodd's Kidney Pills. They have made me a new man."

Mr. Gilchrist is getting on in years but he feels young. That's what Dodd's Kidney Pills do for a man.

HOW TO TREAT HIRED MEN.

It is not a difficult job. The golden rule will reach it. Elbert Hubbard has phrased it as follows:

"They will do my work. Therefore I treat them as I would like to be treated. They are I and I am they."

When a man does your work be as patient with him as you would with yourself if you were doing it. Use no harder language to him for his mistakes or short comings than you would to yourself when you make mistakes.

Always it is the spiteful word that breeds trouble. Actions do not make half the trouble in this world that words do. Kind, patient men make good hired men, if anybody does.

VATICAN'S VAST WEALTH

POPE'S PRIVATE FORTUNE ESTIMATED AT $5,000,000.

Rich Gifts at His Jubilee—Tons of Gold Poured Into His Coffers.

Probably no one but Cardinal Rampolla and Cardinal Mocenni, the Papal Treasurer, know with any degree of accuracy the extent of the Pope Leo's wealth, but it is said that the amount will probably exceed $5,000,000. It is on deposit in the Bank of England.

The Pope had three nephews, sons of his brother, and many grand-nephews and nieces and a host of lesser relatives, but he told them when he was elected Pope that he would not use his position to enrich or advance them.

The Pope's private fortune must not be confused with the treasure which he regarded as belonging to the Papacy, though, as a matter of fact, he could, if he wished, regard as his own all the vast resources attached to his office. He preferred to regard as his own only such money as came to him through private gifts from those to whom he granted audiences.

STOREHOUSE OF TREASURE.

The regular revenues of his office, such as Peter's Pence, revenues from real estate and bonded investments te kept account of separately. Out of it he paid the $1,000,000 that is necessary to maintain the Papal court, consisting of cardinals, diplomatic representatives, court officials, and his little standing army. Over a million dollars a year is spent in charity by the Pontiff. Out of the surplus of official funds Pope Leo was, by wise administration, able to create a contingent fund of $30,000,000.

While the Vatican treasures are practically the Pope's personal property by inheritance from his predecessors, none of them has ever asserted anything but stewardship over them. The Vatican Palace, with its 7,000 rooms, is a storehouse of priceless treasures of art, literature, and precious examples of the jewelers' and goldsmiths' art. It is said to contain more gold than the Klondike, more jewels than the diamond mines of South Africa.

The pontificate of Leo added an inestimable treasure to this horde. When he celebrated the golden jubilee of his priesthood in 1888, an exhibition was opened in the Vatican of the gifts presented him. Tons of gold poured into the Vatican. On the day of his jubilee mass $3,000,000 in gold coin was presented to him.

MILLIONS IN GIFTS.

The crowned heads of the world vied with each other in the costliness of their gifts. The total value of the jubilee gifts is estimated at $14,800,000.

One of the most notable gifts presented to Leo was a diamond said to be worth $4,000,000, which came from that staunch disciple of Luther, "Oom Paul" Kruger. The Transvaal President received it from Memela, a native chief, who was given his freedom after capture by the Boer troops. It fell into Memela's hands from a chief of the Basutos, who had taken it from a Zulu King.

One of the gifts presented to him last March was a topaz weighing 1,784 grams, on which the celebrated Neapolitan artist, Andrea Cartello, had, after twelve years' work, engraved a picture of "The Last Supper." The gem after its decoration was valued at $80,000.

The tiara presented to him at the time, the work of Augusto Milani, a celebrated Bologna goldsmith, is valued at $24,000. The value of the laces in the Pope's wardrobe is estimated at $900,000.

She—"Who rocks the cradle rules the world—remember that." He—"Then—ah—you come in and rule the world. I'm tired."

W—10