

FARM AND GARDEN NOTES.

NOTES OF INTEREST ON AGRICULTURAL TOPICS.

Feeding Pine Boughs—Ways of Saving the Moisture. A Good Business Cow Growing Tall Meadow Oat Grass, etc., etc.

Feeding Pine Boughs.

It used to be an old custom when we were young to bring to the sheep yard a load of pine boughs every winter, possibly several times in the winter, when the snow was on the ground. They would eat them greedily, and it was thought that the resin or some other quality in the needles was beneficial to their health. Spruce and fir are said not to be as good as pine and hemlock, but, where we were brought up, the white pine was more common than the other evergreens, and was most frequently used. We have heard but little lately about feeding them to sheep, and perhaps with the more modern methods of feeding, especially when ensilage and grain are given, they are not needed, but a half century ago they were thought very important, acting as a tonic, and perhaps, to some extent, as a worm medicine.

Ways of Saving the Moisture.

Experiments carried on at the Kansas station to test the relative efficiency of different kinds of culture in conserving soil moisture showed that simple ploughing while the soil was in good condition was as efficacious as ploughing followed by planking, rolling, harrowing or sub-surface packing. Disking was found to be a good means of saving moisture but was not equal to ploughing.

The importance of ploughing stubble ground as early as possible while moisture is still in the soil was shown by experiments in two years. Early ploughing left the ground in good condition, a regards soil moisture, for wheat seeding, while late-ploughed ground was found to be dangerously dry.

A Good Business Cow.

This is the way Professor Robertson, the Commissioner of Agriculture for Canada, describes what he calls a "good business cow."

"Her power of service will be indicated by certain external points. She should have a large, long udder, of elastic, fine quality; a mellow, movable skin covered with soft, silky hair; a long, large barrel, hooped with flat ribs, broad and wide apart; a broad loin, spreading out into broad, long hind quarters; an open twist, with rather thin hips, and a lean neck of symmetrical length, carrying a clean cut, fine face, with prominent eyes. A cow with these points has ability to serve a man well if she gets a fair chance. That her calves may have powers equal to or rather better than her own, care should be exercised in their breeding. The best blood of the breed adapted to the farmer's purpose should be used to enlarge, and not to lessen, the working capacity to be transmitted to her calves."

Growing Tall Meadow Oat Grass.

Meadow oat grass has been recommended for general culture, and although it has not been adopted widely for general farm use, it probably has its place. The North Dakota station has been testing it, and it grows well and produces considerable forage per acre. The plant yielded at the rate of over one ton per acre, and this was new seeding. When it becomes well established it produces an abundant supply of foliage, and is also valuable as a pasture plant, for after being cut, or grazed close, it grows up quickly, forming a heavy aftermath. It grows rapidly on a deep sandy soil when once naturalized.

It was quite popular in New England for a time, and when it was introduced west of the Mississippi attracted considerable attention. In Kansas it exceeded in vigor of growth any tame grass ever introduced. It was more desirable than orchard grass because it endured severe and protracted droughts better. The only drawback was the quality of the hay, which was inferior to timothy and orchard grass. One of its strong points is its earliness, producing pasture for stock ahead of any other variety. If cut early it makes a finely flavored hay, but is usually coarse. Chemical analysis shows that it contains a fair percentage of muscle forming material. About two bushels of seed to an acre are usually sown on well prepared land and covered by means of a light harrow or roller.

Cost of Chickens and Eggs.

For more than three years the writer has kept a strict account with his poultry, charging it with all the feed the flocks have consumed and crediting eggs and sales of poultry. Two years of this time the flocks were kept penned up the year through and were fed everything they had to eat. During the last year the flocks have been given the liberty of the farm, being allowed to run about the barns, stock yards and the nearby fields. This account has been kept long enough for the law of average to apply and we think we have a pretty good idea of chickens and eggs.

We find it costs about 55 cents to keep a hen a year when she is penned up, and something less than 35 cents when she is allowed to forage for insects, seeds and the waste grain always to be found on a farm. Young chickens cost about 15 cents the first ten weeks of their lives and after that they cost more, as their capacity to consume food increases with length of days. It costs 4 1/2 cents a dozen to produce

eggs where hens are penned and less than 4 cents where they have their liberty. The penned hens produced nearly two dozen eggs, each, more than those having a free run.

This last result was somewhat surprising and no doubt much of the difference is due to the fact that where hens run at large more or less of their eggs are lost by being laid in secret places or devoured by vermin of one sort or another. The fact that poultry pays even in those places where eggs bring a low price in summer is shown by this record. The results agree quite closely with those attained at two experiment stations where poultry has been subject to careful tests.—Farm, Field and Fireside.

How Plants Feed.

When a stock grower wishes to raise healthy stock he has his animals well groomed and fed. When a farmer raises fine crops he sees to it that they are properly cultivated and manured. In some respects the feeding capacities of animals and plants are the same, in others they are quite different. For instance, animals and plants must be able to digest their food for proper nourishment, yet the former can eat solid food while the latter can only absorb it in a liquid or gaseous state. The success, therefore, in raising animals or growing plants is dependent upon the practical observation of these two distinguishing characteristics.

Plants get their foods either from the air or from the soil. From the air they take certain elements which go to make up their organic structure. Although the air contains abundance of nitrogen, still there is only one class of plants which can absorb this material from that source, and this is the leguminous family, among which may be mentioned clovers and peas. From the soil comes all mineral food. The various elements, however, are usually present in the soil in sufficient quantities with the exception of phosphoric acid, potash and nitrogen, and sometimes lime; hence the farmer who feeds his soil has only to look after supplying these ingredients. The plant takes in these elements from the soil through the roots very much on the same principle that a sponge absorbs water. It is evident, therefore, that the food materials must be in a liquid condition before they can be absorbed by the plant. It should be the aim, therefore, of every farmer to get his soil in the very best possible condition so that the fertilizers can act to the best advantage. The soil should be as porous as possible, in order that the plant roots can move about freely in search of nourishment; rough, lumpy soil prevents the spreading of roots and the consequent absorption of nourishment, which means a curtailment of the yield.

It often happens that a soil deficient in plant food will fail to respond to an application of fertilizers, such may be caused by several things, one of which is the time of application. The usual practice is to put on the fertilizing materials about planting time, and very often they do not have a chance to pass from solid into liquid state. They are, therefore, of no benefit to the plant. Again, on account of the poor physical condition of the soil, the fertilizers may not become properly disseminated and of course do not render full benefit to the growing crop.

The plan most common now is to apply the mineral fertilizers, that is the phosphoric acid and potash, some months before planting and the nitrogen at planting time. The potash salts and phosphates will not leach out of the soil, and there is no danger of loss in this direction. In the case of the nitrogen, however, this material ought to be applied only when needed by the plants, as it is very soluble and may leach out of the soil.

FARM AND GARDEN HINTS.

Short grass cut with a lawn mower is a good green food for fowls.

Fowls will fly over a high fence if there is anything at the top for them to fly at. Don't put on a top rail. Use a small wire.

Celery grown in spent hotbeds does not yield as well as when grown in cold frames.

Feed skunks and similar pests a lump of lard with strychnine inside, but keep away the dogs and cats.

One breed is enough on any farm; two breeds make extra work and more than that is a real nuisance.

As pigs increase in age it may be well to increase slightly the proportion of corn in order to make the ration a little more carbonaceous toward the finishing period.

Don't compel the workhorse to go from morning until noon without drinking. The horse becomes thirsty as often as does the man who uses him.

Cost of raising a broiler two and a half pounds in weight ought not to be over 25 cents on the farm. There is room enough for profit for the grower who knows how to get a good hatch and keep them alive.

There are only three things necessary for successful bee culture. One should know what to do, how to do it, and then do it in time. If these are observed you cannot fail.

Worms come close to the top of the soil after the rain. If the surface of the run is hardened a few strokes of the spade will turn up hundreds of worms, greatly to the delight of the fowls.

The Ohio experiment station concludes that so far as a single season's work can show there is no superiority of the factory mixed over the home mixed of equivalent composition, and that the cost of the fertilizer is greatly reduced by home mixing.

NOTES AND COMMENTS.

The United States Court of Appeals at St. Louis has decided that the only case in which suicide invalidates a life insurance policy is when the individual contemplated suicide on taking out the policy.

A scientific gentleman now insists that baldness in a man is indicative of intellectuality. This being true the wife has her opportunity of having an intellectual husband.

British officers think they must stand up during battle, even when their men are lying down. There is no excuse for such bravado. Officers are needed to direct their men and not to become martyrs to a mistaken idea of what constitutes courage.

With a refrigerator in every house, cold storage warehouses in every city, and refrigerator cars on every railroad, it is a little difficult to realize that the process of freezing articles of food to prevent decomposition was not perfected until a little less than twenty years ago.

The mere giving of money seldom makes a man popular. By instinct the public passes judgment upon the giver and the gift. If the motive was mean, the return in praise and honor will be small.

A curious fact noted in the English lunacy statistics is that the females outnumber the males in a very considerable degree, especially in the London institutions, whereas in this country, even in the State of Massachusetts, where in the general population, the females far outnumber the males, an even ratio is maintained in the insane population.

Our next census will show a population of about seventy-five millions, says The Ladies' Home Journal. To complete this count within the required thirty days about fifty thousand census enumerators will be employed. It will be necessary for them to count at the rate of two and a half million persons per day, or even faster. The population of all cities and towns of over eight thousand must be enumerated within a period of two weeks.

Business has been broadened so much within recent years, that to succeed in it requires as great if not greater mental capacities than are called into requisition in the professions. To manage an establishment employing thousands of people; to correctly gauge public wants and supply them at a profit; to seek, discover, and develop new markets—all involve qualities of foresight and execution that the commander of an army or the executive of a nation would find extremely useful. The recognition of this fact has done much to lift mercantile life to the high estimation which it at present enjoys.

Even Russia is coming to us. After looking over the field thoroughly that nation has resolved to use an American railway brake. Inasmuch as most of her locomotives, together with a large amount of the steel rails used upon her roadbeds are of American manufacture, she can be almost given the credit of running an American railway system.

General Funston is not only a hero but a truth teller as well. He won't accept a sword with an inscription on it, purporting to quote an expression never used by him. While he did not say he could hold a certain position until his regiment was mustered out, no one doubts that he would have done so had it been necessary. Nevertheless, one must admire the spirit of a man who doesn't want glory that is not belonging to him. Such men are not too common.

A test case brought by the City of Milwaukee, Wis., under an anti-smoke ordinance, has been lost, the court ruling that the city had failed to establish the fact that the black smoke was a nuisance. The evidence introduced by the City Attorney consisted of photographs showing dense smoke issuing from a brewery's chimney, the testimony of persons living near who had seen the smoke, and the reports of tests made by the officers of the Health Department. The Court did not consider the constitutionality of the law.

The great leisure for research which is made in Germany universities can be understood by reading the figures published in Science. Twenty-two per cent of the professors in the German universities are engaged in lecturing or in laboratory supervision from two to six hours a week, and fifty-one per cent from seven to twelve hours. Of the associate professors sixty per cent are engaged from two to six hours per week, and of the privat-docents eighty-three per cent; only four per cent of all privat-docents are engaged in lecture or laboratory supervision more than twelve hours a week.

Modern inventiveness has set artillery, always the chief arm of defense, in the first rank of means of offense in war. It is hardly extravagant to say that a war between any two civilized nations to-day, without gross inequality in other respects, would be an easy victory for that which was distinctly superior in possession and skilled use of modern artillery. This has been clearly recognized in Europe for some years, and the contention among nations has been for superior equipment and drill in rapid fire field guns. The mobile, quick-action field piece is a natural development of the

principle of the long-range magazine rifle. It adds weight and range and volume to that envelopment of an attacking or resisting force with a rain of bullets long before it is near enough for fighting on the old tactics which has changed the whole art of war. Modern artillery and the modern rifle practice out of which it has grown have been almost as revolutionary as gunpowder on its first introduction.

The extent to which machinery is supplanting hand-labor in the coal-mines appears in a recent report of the Ohio Mine Inspector. Of the year's coal production of 14,058,135 tons in that state, 5,252,588 tons were mined by machinery. This is a gain over the preceding year of 1,147,474 tons, and is the greatest amount by that method in the state's history. The year's increase equals the entire amount of machine-mined coal during the year 1890, and is nearly 250,000 tons in excess of that so produced during 1889. Other figures in the report are of interest as showing the benefits of mine supervision in the lessened roll of injuries and deaths. There were 270,463 tons of coal produced to each life that was lost, and 90,736 tons mined to each person who was seriously injured. There was one fatality for every 563 persons employed, and one injury to each 102 persons engaged in the industry.

The question as to whether the rich man can get more out of life than the man of moderate means has received a fresh illustration from the report of a recent speculation on the Stock Exchange in which the son of the leading Standard Oil magnate is said to have cleared a half million of dollars. If that is the best use to which this favored youth can put his life and talents, then his share in this world's blessing is small indeed and he is not to be envied observes the New York World. If out of all the possible opportunities offered him he appreciates only the chance of becoming a sordid gambler—a greedy grabber of other people's money—he is as poor as if he needed his gains to live on. If at the age of ambition and aspiration, of generous sentiments and high ideals, this young man sees in life only a chance of heaping up money which he cannot spend and does not know how rightly to use, his life is a failure and his fortune not a distinction but a degradation. Sad and melancholy beyond expression is this illustration of all that boundless wealth can do for the heir to one of the greatest fortunes in the world.

A notable change in lumbering operations in Maine is the substitution of the saw for the axe in felling trees. The experiment was first tried in 1898, and with such success that the more progressive lumbermen are now planning to use it altogether. Much is gained in point of time and wages, the choppers being regarded as expert employees, and being paid accordingly. Another important gain is the saving of lumber. Formerly it was a common thing to see all over a lot stripped of trees stumps from two to three feet above the ground. This part of the tree was the very best, both because it was free from knots and because it was the largest part of the tree in girth. By using the saw the trees may be cut off nearer the ground and a big saving made. Of course, as in all such labor-saving changes, a labor question is involved. Many of the choppers, upon a report that saws were to be used the past year, threatened to rebel, but their grievances were met for the time being by an arrangement whereby they were to use the axe in places where the saw would be inconvenient, and in the trimming of logs felled by the saws.

Got Their Mail at Sea.

An unusual incident happened on the homeward voyage of the Castle liner Carlsbrook Castle, which brought the last mail but one from the Cape. The English letters not having arrived before the Lismore Castle sailed from Cape Town for home, the captain of the Carlsbrook Castle, which was to sail the following day, good-naturally undertook to deliver the letters to the disappointed passengers on the Lismore Castle on the high seas.

On overtaking the Lismore Castle the captain had the letters inclosed in a tin box and soldered up. This was put into a flour barrel, with a pole attached flying a red flag, and having passing the Lismore Castle and got well ahead of her, the barrel was dropped overboard, the captain of Carlsbrook at the same time hoisting a signal which had been pre-arranged. The Lismore Castle coming up on her course in due time picked up the barrel, and so the passengers received their anxiously waited news from home. They expressed their gratitude on their arrival in England by sending to the commander of the Carlsbrook Castle a beautifully illuminated address, on which was depicted a barrel floating on the high seas bearing a red flag, the barrel being supported by two pretty sea-maidens.—London Chronicle.

He Was His Own Dentist.

A Foxcraft man who was suffering from a toothache while "seven miles from a dentist," attended to the aching molar himself by tying a fish line around it, fastening the other end of the line to a hook in the post of the piazza and sitting down quickly. This reminds a Bath man of a neighbor of his who always extracted his own teeth. If an upper one he tied a string around it, with a heavy weight at the other end of the line, mounted to the hawmow and dropped the stone. If a lower tooth was the one aching, he stood on the floor and threw the weight up over a door.—Lewiston (Me.) Journal.

TWO COINCIDENCE STORIES.

Told in Good Faith in a Club Where All Romancing is Barred.

It was the secretary's turn to tell a yarn to his fellow members of the Coincidence Club. The Coincidence Club, by the way, has no cumbersome machinery. It has members and officers, meets once a week to tell queer stories along the line suggested by its name, and everything but the strict truth is barred.

"I've got two stories, much alike, to tell. There's nothing dramatic or sensational about them. They struck me as queer, though. You know I'm a lawyer. One day a man named Dodge brought in a letter of introduction to me from a friend out West. He had a simple sort of a case, and I asked him to come back at 3 o'clock that afternoon. Then I went over to the criminal court on business that kept me till within a few minutes of 3 o'clock. As I entered my office there was a man sitting in the shadow. Without really looking at him, and with my mind full of the appointment I said, as I went to my private office:

"How are you, Mr. Dodge? I'll see you in a minute."

"Pretty soon I rang and told the office boy to show in Mr. Dodge. The man came in and he wasn't my Mr. Dodge at all. Imagine my surprise when he said:

"How did you know my name?"

"At the same time he handed me a letter of introduction from a friend in down East. His name was Dodge, all right, and he had a case. I gasped over the oddity of the situation, explained the coincidence to my visitor, and even showed him the other letter of introduction. But the man did not believe me. He evidently thought I was a liar. A few minutes later in came the first Mr. Dodge, and we had a good laugh over it."

"The other coincidence was this: I got letters from two friends—one west of Chicago and one south, asking me to collect claims against a big Chicago firm and a big insurance company with an agency in Chicago. I telephoned and made appointment with representatives of each of the concerns—one at 12 and the other at 12:30 o'clock. I went out on an errand and was delayed till 12:30 o'clock. When I came in both men were waiting. Strange as it may seem, both men were named Rose. I introduced them. One was originally from Rhode Island and the other from Connecticut. As far as they could figure out they were not related. I've used false names, but otherwise the stories are strictly true, and can be proven by evidence that will pass muster in a court of law."—Chicago Inter-Ocean.

Meaning of the Word "Oom."

"Many persons in this country—and well informed persons, too—have an idea that the word 'oom,' as applied to President Kruger of the Transvaal, means uncle," said a man who has passed the best years of his life in South Africa. "This is an error, as the word is a Zulu word, meaning chief, or ruler. 'Oom' Paul simply means 'Chief Paul,' and nothing else."

"There are hundreds of 'ooms' among the Zulus, whose language has entered largely into the daily life of the Boers. The main ruler, when he wishes to confer a favor upon a subject, makes him an 'oom' of a certain territory, over which the new ruler has absolute sway, subject, of course, to the restrictions placed upon him by the main 'ooms.'

"Then the minor 'oom' may wish to confer a favor upon one or more of his subjects. He gives him a sub-division of the territory over which he presides, and confers upon him the title of 'oom,' or chief; so you see, there are hundreds of 'ooms' in Zululand, and as President Kruger is the ruler of the South African republic he is naturally 'Oom Paul,' that is, Chief Paul—no uncle about it."

"These Zulu 'ooms' are far more proud and haughty than the North American Indians, and no matter how insignificant their domain or how few their subjects, will never condescend to talk with any but the chief 'oom' of the white men. They have no use for subordinates, and will see the head chief or none."

"I was present at the time of the surrender of 'Oom Amantzi,' or Chief Double water, of the Zulus, at the close of the Zulu campaign. I was at a little stream, watering my horse after a long trek, when five Zulus came up and demanded to see the main 'oom.' Naturally, I took them to Colonel Russell, but with him they would have nothing to do."

"Sir Garnet Wolseley was the 'oom' they wanted to talk with, and no one else would do. So I trekked with the black-skinned beggars 200 miles through the wilderness to a point now known as Point Dunford, where the formal surrender was made. But don't you think for a minute that the Zulus would condescend to surrender to any one but 'Oom' Wolseley."

How She Moved Her Audience to Tears.

"Now, dear," said the great prima donna, addressing her husband, as she sat up in bed to have her toast and coffee, "get the papers and read what they say about my performance last night."

So Signor Montegrappo, who was known in private life as John D. Hankinson, unfolded the Morning Mercury and began looking for "Music and the Drama."

"Ah, here it is," he said, at last. "Now let's see what this pig of a critic knows about the sublime and beautiful. Curse the dog! He has written half a column about Mlle. Spoutorey, but I don't see your—oh, yes, here! Now listen:

"Mlle. Montegrappo, as the countess, moved the audience to tears. A—"

"Oh, Alphonse!" cried the artist, giving way to her emotion, "how heartless it was of you to refer to him as a pig and a dog! Moved the audience to tears? Ah, how generous of him to say so! I must write a dear, sweet little note with my own hand, thanking him for his kindness in saying this. Ah, that critic of the Mercury is a man who knows his business. Go on, Alphonse, go on. I can't eat until I have heard the rest of it."

"Moved the audience to tears," Signor Montegrappo continued. "A boy in the gallery was thoughtful enough to applaud after she had finished each of the numbers allotted to her, and she at once responded with an encore."

By dodging skillfully the husband of the great prima donna managed to keep from being hit by any of the plates or cups or saucers that were hurled at him, but it took the chambermaid an hour and a half to clear up the wreck.—Chicago Times-Herald.

MAKING BIOGRAPH PICTURES.

The Way the Startling War Pictures Are Procured.

Ten miles from New York and three from Newark lies the ancient city of Belleville, with its hat factory, its copper mill, its five churches, its two academies and its ruins. Happening to pass through it the other day, writes Victor Smith in the New York Press, my attention was arrested by one of the strangest scenes ever presented to this peaceful country. On one side of a tower-like mass of crumbling bricks, stone and mortar a detachment of the Spanish army was drawn up. It was protecting the tower from foreign assault, and there were much firing, running about, waving of arms, kneeling, jumping, ordering, commanding, urging, etc. I failed to catch sight of the foe, but from the manoeuvres of the Spaniards it must have been dangerous.

Suddenly there was a sound of musketry from the woods. A bright yellow negro man, dressed as a Cuban, tumbled from the upper window of the tower, shot through the heart. Then, to my amazement, as soon as he touched the ground and was concealed by the Spaniards, he sprang up, rushed into the tower, ascended the steps and appeared again at the window. The sound of musketry was renewed, and shot a second time through the heart, our poor Cuban tumbled earthward. But even the two mortal wounds and the terrible falls failed to kill him. He repeated the act without waiting for an encore. Twelve times he was shot through the heart, twelve times he raised his arms to heaven, twelve times he staggered, twelve times he leaned forward in a dying agony and twelve times he reeled and collapsed, contorted, curled up, grasped at invisible support and tumbled to earth. And still he lived.

Before leaving the field I learned that the Spanish army was made up of employes of a biograph company; the tower was a blockhouse in Cuba; the Americans were supposed to be firing on the Spaniards who were protecting said blockhouse; the negro was paid a dollar a fall to act as a Cuban shot in the right spot, etc. The show was intensely realistic, and in a few nights we shall have the whole affair on some stage in town labeled "Defense of the Blockhouse at Guanatanamo, in the Late Spanish-American War," or words to that effect. At a convenient distance from the scene at Belleville the biograph was stationed, snapping off pictures at the rate of 200 a minute—positively "without vibration."

In Memory of Leipsic's Battle.

In memory of the great battle fought near Leipsic in 1813—the so-called "battle of the nations"—when between 200,000 and 300,000 Prussians, Russians, Austrians and Swedes under Schwarzenberg defeated 180,000 French troops under Napoleon a "Volkerschlacht monument" will be inaugurated October 18, 1900. A space of more than 40,000 square yards has been given by the city of Leipsic for the purpose, and the mound which will be surmounted by the monument—it will be an immense earthwork 250 feet square at the base—will be thrown up in the course of the coming year. The monument will be about 250 feet high, and the figure of the archangel Michael, which will stand on the east front, surrounded by war furies and genii of peace, will be about twenty-five feet high. It is expected that the monument will be finished in time for the centennial celebration in 1913. For the inauguration a year hence, the Patriotic League is already arranging for the presence of the Kaiser and the other German sovereigns and princes.—Chicago Record.

Those Awfully Long Words.

At 1 o'clock A. M. the night editor shouted through the speaking tube to the man in the telegraph room whose business it was to supervise the dispatches from the seat of war in the Transvaal and to act as custodian of the Dutch dictionary:

"Glubbings!"

"Ay, ay."

"That last dispatch from Pretoria will have to be cut. It's half a column too long. Come up here and take out a couple of words!"—Chicago Tribune.

Evolution of the Salmon.

When a young salmon is first hatched it is known as a parr; just before it leaves the fresh for the salt water it is called a smolt; when it first returns to spawn it becomes a grilse, and not until it has spawned is it entitled to be dignified by the name of salmon.