

On the Farm.

FALL PLOWING CONDITIONS.

Where spring wheat or oats are grown, fall plowing should be done on an extensive scale, as under usual conditions it permits the sowing of these grains from two to three weeks earlier than is possible when the plowing is delayed until spring. In the fall or early winter, plowing can often be done at the least expense, there being no other timely work for team or men. The team is fully hardened to heavy work and, notwithstanding the short days, more work is accomplished than during the longer days of spring when the team is not inured to hard labor. Low lands can often be plowed at this season, which the snow and spring rains would make quite impossible to plow in the spring in time for a seasonable crop. Upon fall plowed land wheat and oats are often sown when the bottom of upturned furrow is still frozen solid, and upon the earliness of sowing these crops depends the profit in their production.

Fall plowing can be done when the upturned furrow looks sleek and greasy from so much moisture in the soil. This condition will do no harm, as the freezing that soon follows tears to pieces the most compact clods, leaving the surface soil soft and friable, while if done under the same moisture conditions in the spring the results would be the reverse. Fall plowing of a stiff sod not only causes every furrow to act as a drain to absorb the rainfall, but the upturned furrow contains the wire and cutworms, and thus exposed they are frozen to death. If you desire to test the benefit of fall plowing, plow a wide strip across the field in late fall and the balance at the usual time in the spring and note the results at harvest time. Particularly if the land be a sod, you will be surprised at the results.

CORN FODDER.

When the ears are ground into corn and cob meal, corn fodder shows a higher percentage of digestibility than any other good coarse food stuff, being 8 per cent. higher than timothy hay and 11 per cent. more than clover hay. Contrary to the belief of many practical feeders, digestibility is increased 6 per cent. by grinding the ears, and the value of the ears alone is increased nearly 20 per cent.

This is due to the fact that complete mastication is not accomplished where ears are fed alone, and much of the grain passes through the animal. The edible portion of the corn stover has a nutritive value fully equal to that of timothy hay which closely resembles in composition and digestibility. The following shows the digestion coefficients for corn fodder: Dry matter 67.5, ash 23.4, protein 43.3, fat 65.7, fiber 67.7, carbohydrate extract 74; and for corn stover, dry matter 58.2, ash 22.5, protein 37.4, fat 55.2, fiber 70.3, carbohydrate extract 60.6.

STORING OF FRUIT.

The storing of fruit under dwelling houses is not recommended. A certain amount of decay is inevitable, and the rotting fruit becomes a propagating place for disease germs, which permeate the rooms above.

A pit or cave, if carefully constructed, will keep apples very satisfactorily, and has the advantage of being the less costly of any possible storage construction. Such a cave as described by authorities is usually built into a hillside, sloping toward the north so that the entrance is protected from the southwest winds that prevail during summer and autumn. In moist soils the cave must be walled; in dry soils no walls are required. Upright posts along the sides support the top, which is made of poles; over the poles is a layer of coarse hay, and over the hay soil to the depth of two feet. Several flues are made for ventilation. Such a cave may be built any desired dimensions; some are being planned with doors at each end and large enough to allow a passageway for a wagon through them. The best system of ventilation and the most even and desirable temperature can be maintained by use of an underground ventilation pipe leading from an opening in the floor of the cave to a similar opening on the surface of the ground several rods away. The pipe should be large enough to provide sufficient air for the cave, and should have valves at each opening to regulate the supply. The air in passing through the pipe is cooled in summer and warmed in winter, and thus brought to near the proper temperature for good results in keeping fruit. To complete the system several flues should lead through the top of the cave to the open air above. The sum of the capacities of these flues should at least be equal to the capacity of the ventilator leading into the cave.

FEEDING PIGS ON HAY.

While pigs will live on hay for a short time, they cannot be carried

through the whole winter and made to take on any gain. In fact, when confined to an exclusive hay diet they lose in weight, and at one place where the experiment was performed the loss in weight during a three weeks' trial was nearly 85 pounds with four pigs weighing about 140 pounds each. Alfalfa pasture is doubtless a help to pig raising, but hay alone can only answer to keep pigs alive until other feed can be secured.

WAR JOTTINGS.

An enterprising theatrical manager in Vienna has offered ex-President Kruger \$200 per week for six weeks to deliver lectures on the Transvaal War. Kruger is said to have refused the offer.

Russia has now issued an edict that she annexed Manchuria as part of the indemnity which China owes to her in consequence of the Boxer attacks on Blagovestchensk and other stations. The land will be used for Russian colonization.

The total British casualties in the South African campaign up to the 20th of September (exclusive of sick at present in our hospitals) are nearly 40,200. The loss from disease has been twice the number killed in action, and over 27,000 men and 1,200 officers have been sent home as invalids.

The officers of the German expeditionary force in China have each been provided with an improved spirit lamp which will roast in a few minutes birds, joints, etc. There is a dearth of table delicacies in Berlin. By order of the Kaiser all delicacies are being bought up by the authorities to be fitted for the use of the German forces in China.

Owing to the fact that many hundreds of men will return from the war disabled or with health permanently injured, it is proposed to establish a "Khaki Association." The object of this institution will be to get all those who have served in South Africa to combine for the purpose of assisting their maimed and disabled comrades, seeing that the small Government pension will be quite insufficient for their needs.

The Dowager-Empress and Emperor of China have taken refuge at Tai-Yuen-Fu, about 200 miles from Peking. It is an old Tartar city, surrounded by a formidable wall eight miles in circumference. Tai-Yuen-Fu is renowned as having been the scene of the most famous siege in Chinese history. In A. D. 757 it was besieged by a force of 100,000 men. The garrison of the city, however, which was but a small one, successfully held out for a month, and at the end of that time made a sortie, completely routing the besiegers, who, it is said, left 60,000 dead upon the field.

RAMS' HORN WRINKLES.

Heavy grades need heavy engines. Affection is the best aid of memory.

Depression of spirits ought to life us to God.

When a man is upright, his head is heavenward.

True spirituality is in doing, not in dreaming.

THE ERSE LANGUAGE.

Ten thousand Irish children are being taught the Erse language.

UNJUST DISCRIMINATION.

Emperor William has discharged one of his diplomats because the latter married an American divorced woman.

COULDN'T BELIEVE IT.

"You see a great deal in the newspapers that you can't believe," remarked Mr. Meekton's wife. "I know it, Henrietta," was the answer. "For instance, here is another one of those stories about a man who makes fun of his wife's cooking."

VISUAL POWER OF UNCIVILIZED PEOPLE.

The widespread impression that people living in a primitive condition possess more acute vision than civilized men enjoy receives a little support from the investigations of Dr. Rivers during the recent British expedition to Torres Straits and New Guinea. The visual powers of the people there were found to be superior to those of normal Europeans, although the degree of superiority was not great. The natives of Torres Straits could see better in the dark than most Europeans could. Their sense of touch was also slightly superior, and in the discrimination of weight they were more accurate than a practised European. Dr. Rivers ascribes this acuteness of vision to their habits of constant observation.

GUEST'S ANNOYING BLUNDER.

An Englishman recently visited friends in Donegal, Ireland. Going to bed soon after his arrival he dropped his watch into a handsome pocket above his pillow. Not till morning did he discover that there was water in the receptacle, which, indeed, was not a watch pocket at all, but a place for holy water. The watch was ruined.

WON BY PERSUASION.

Victorious Strategy Has sometimes inverted Bloodshed.

There was a lull in the storm that raged for years between ourselves and the New Zealand Maoris. One of the most tactful of our representatives wanted a road from one of the chief coast towns into the interior. Dense forests and mountain-ridges cannot be hastily compassed by troops, and this is why the road was wanted. The native king did not want the road and would not make it. Then our representative presented to that native king, who lived in the interior, a beautiful European vehicle on springs, with the necessary ponies to draw the same. The king was transported with delight.

Then he remembered that there were no roads to drive along. If he tried to get that showy vehicle through the bridge-paths it would be jolted to pieces. What was the use of having a splendid equipage unless he could show it in the coast-town to natives and white men alike? So the king decided to make the road at once, and he put native labourers by the thousand on the work. In two months a magnificent strategic and military road was made for us at the cost of a trap and horses.

There is one native ruler in South Africa who is noted for his wisdom, considering local conditions. He has been to England, but he does not welcome strangers. When a great empire-maker wanted him to give concessions for a mighty line of railway, he fought so shy of the scheme that he would not even for a time see and talk with the eager Briton. No sum of money seemed to tempt him to disturb his people, as he said. The empire-maker happened to have a friend in the life insurance business. This gentleman was, through hunting expeditions, known personally to the native ruler. The insurance-man paid a visit to the ruler, various sorts of game being the ostensible objects.

He pointed out that he personally had such a belief in the new railway that, if the native ruler would grant the concession, the following return should be made. He, the insurance-man, would so insure the ruler's life that the latter should have a clear £100,000 to his successors; he should, if he liked, borrow vast sums on the policy; and he should not have a penny of premiums to pay. He explained, with the eloquence of his class, all the manifold beauties of insurance. The king was so delighted that such things could be done at all that he consented at once. The good effect has remained, and there is no treasure that the native ruler possesses that he is more fond of displaying to distinguished visitors than his insurance-policy.

Within the last three years one of our administrators on the West Coast of Africa has had vast difficulty, like his predecessors, in procuring an accurate register of the natives carrying firearms. No ordinary bribes would ever induce the natives to have their guns stamped, they alleging that firearms were bewitched by the stamping.

Our officer noticed how fond the natives were of craving for free medicine. He had formerly been one of the officers who were charged with the very successful vaccinating of cattle against rinderpest and these two items of knowledge suggested an idea. He at once sent native messengers everywhere, to give out that all firearms that had ever missed fire or gone wrong in any way must have the rinderpest. He intimated that if the native owners would bring them in at once he would vaccinate all guns and the like, so that they would never get the disease again. From that time forth natives began to troop in from spots hundreds of miles away, and the one who had not had his rifle vaccinated was regarded as the possessor, of a mere piece of iron.

Within very recent years the Sultans of Zanzibar practically defied our administrators as to the suppression of the slave trade. The predecessor of the present Sultan boasted that his bodyguard were provided with magic bullets. Colonel B—, the British representative, told him that our men did not even require bullets. And then he had some tallow candles brought at a ship's store, fired through boards and other obstructions.

Beyond this, the supercargo of a trading-vessel, one Mitchell, was an amateur conjurer, and he so worked off certain old tricks as to astound the Sultan. He had what looked like bullets fired at him, and then shook real leaden bullets out of his hair, and so on.

The Sultan was, it appears, afraid to some degree of the Arab slave-dealers, and he had the performance repeated before them, to their fearful astonishment. The immediate results were certain treaties.

Sir H. H. Johnston, now our representative in Tunis, once acquired a vast territory through the influence of the Punch-and-Judy. He invited the chiefs to a palaver, and commenced proceedings with a puppet show. The worker of the figures was a Marine, who was hidden in the usual way.

The chiefs would not allow any

talking after that, but had the show repeated again and again. They never even discussed the concessions asked. These concessions had been bitterly opposed before. The only stipulation made by the local king was that no other king of the country should be allowed to use the new "medicine"—the new dwarfs.

SOME ANTIQUE CUSTOMS.

Singular Ceremonies Performed After Elections in England.

One of the most extraordinary civic customs that still survive is that of "weighing-in" the Corporation of High Wycombe. After the election of the mayor is concluded, that functionary, the aldermen, and the councillors proceed to the borough office of weights and measures, where they are weighed and their correct weights duly entered in a book. The policemen on duty are also included, and last year provided the heaviest man in the person of the senior sergeant, who scaled 18st., the light-weight of the corporation being the town clerk, whose avoirdupois was barely 9st.

At Grantham a singular custom used to prevail on the election of a new alderman. The retiring official, accompanied by his council, would repair to the parish church, where his chain and robes were stripped off and given to his successor. Then a man appointed for the purpose would baston on his head several light taps with a wooden hammer—a ceremony entitled "Knocking the old alderman down."

"The burying of the mace" took place annually at Nottingham. On the day the mayor was elected his predecessor, together with the aldermen and councillors, attended service at the parish church, after which they repaired to the vestry, where on the table, which was covered with a black cloth, lay the mace hidden from view, beneath a sweet-scented covering of rosemary and bay. Then the old mayor seated himself and, after the new mayor had been duly elected, took up the mace, kissed it, and delivered it over to his successor.

Surely there was never stranger method of election than that which used to prevail at Leicester when the new mayor was chosen. The candidates having seated themselves in a semi-circle, each with his hat full of beans, a sow was introduced, and he out of whose hat the animal first ate was elected chief magistrate for the coming year.

At Grimsby a somewhat similar mode of procedure formerly existed, a calf, however, being substituted for a sow. The three burgesses who were considered most eligible for the office having been selected were blindfolded, and a ruse of lay having been fastened to their backs were led to a common, where a calf awaited them. Then they were left to wander at will, and he whose hat the animal first touched was at once elected to the magistracy.

The maces belonging to certain corporations served in former days as cups. Such was the case at Berkeley, where, when the last toast was reached, the head of the mace was unscrewed from the stem and filled with punch, in which the company present drank to the town's prosperity. The mace belonging to the Corporation of Carnarvon was on State occasions put to the same use.

Bridge Fair, Peterborough, is opened by the mayor and corporation walking in procession to the bridge that spans the river, where the town crier declares the fair open. Afterwards, according to custom, the mayor entertains the members of the corporation to a sausage and champagne luncheon at the adjacent hotel.

"Beating the bounds" at Dunstable is an important function, custom prescribing that at each boundary some influential resident shall be bumped. The bodies of the mayor, the aldermen, the councillors, and other leading townsmen who attend the ceremony are, therefore, each in their turn requisitioned. Seized by their arms and legs, the civic dignitaries are raised from the ground to find themselves the next second brought forcibly in contact with a hard post. Naturally the whole affair gives rise to much amusement, and terminates with a luncheon which is provided by the town council.

ESPECIALLY ONE.

Two elite members of the upper ten of colored society sat very close together on the deck of a Belle Isle steamer the other afternoon. She was gorgeously arrayed in the bright colors of summer and he was a regular cake-walk dream. They were very observant, and there was little escaped their notice. Finally two persons sitting near the railing attracted the attention of the lady, who nudged her companion and remarked: "Mah, goodness, Chawles, doan' dose two gemmens ovah dar 'semble one annuddah?"

Yeh, replied the dusky gallant, speculshly de one on dis side.

There was no particular import in what the wild waves said about the matter.

WIRELESS TELEGRAPHY.

Marconi strikes a New Idea for the Improvement of His Wonderful system.

Probably the most important step in the advance of wireless telegraphy toward practical use is that which has just been made by Marconi. The old system—for it may be called old now that an entirely new one has replaced it—consisted of an elaborate set of instruments and apparatus, the chief external evidence of which was an aerial wire suspended from a tall mast. It was in the height of the mast that the virtue of the system was supposed to exist.

Now all this has been changed. The aerial wire and the tall masts are done away with, just as static electricity was replaced by chemical electricity and chemical by electro-magnetic. Marconi has already telegraphed sixty miles with a cylinder four feet high instead of a mast and wire 125 feet high.

As long as last January he began to work on the cylinder plan. In essential arrangement and working, the cylinder plan is not greatly different from that of the aerial wire. The transmitting instruments are practically the same, a battery induction coil, earth wire, etc., the only change in this part of the apparatus being the introduction of resistance coils where needed and an arrangement for sending "tuned" messages.

Just how the messages are sent is more of a puzzle now than ever. Formerly no one, doubted the statement that other waves constituted the element of communication. Now this is being questioned. Why not earth currents? suggest some, and the inquiry is not easily answered.

The production of these high tension impulses might easily disturb the electric equilibrium of the earth, it would seem, and the very sensitive receiver in electric harmony, so to speak, with the transmitter would record this disturbance just as it occurs—in long or short impulses, or in dots and dashes as they appear on the recording instrument. Of course, if this be true, any properly arranged receiver can take the message provided it is within range, but the same fact is evident in the old system. That difficulty is obviated, however, by the syntonic apparatus, which makes it impossible for a receiver not exactly in tune with the transmitter to receive the message sent. One may judge of the difficulty in finding the right electric "tune" when one realizes that these high tension vibrations vary from millions of vibrations to trillions a second.

It is interesting to note that 400,000,000 vibrations in the ether a second produce light and some trillions a second produce the X-ray. To the theory that this wireless telegraphy is carried on through the earth, that is, by disturbing the earth's electric equilibrium, the objection arises that such disturbance would affect near-at-hand wire or cable telegraph systems, dynamo power houses and all sorts of electric operations. Not so necessarily, S. and waves and light waves do not conflict because their rates of vibration are different. These high-tension vibrations of millions a second should not disturb vibrations which are lower, as are telephone vibrations, for example or light vibrations which are higher. It is true that any disturbance of the earth's electric equilibrium will to an extent affect electric operation on the earth's surface, but this is a large factor and the difficulties are probably be easily overcome.

But it is not best to be too sure as to the nature of the operation. Marconi has given months of thought and experiment to just this problem and it is doubtful if he even is sure of what the force really is. Tesla has made many predictions in connection with transmitting electric power in just this way. His plan meant simply that he would kick the earth electrically, and the power put into the blow could be picked up anywhere on surface of the earth if the proper detecting and collecting apparatus was used. A Frenchman has recently come forward with another plan quite similar, and the French Government is trying to carry out his ideas. He proposes to test the earth's surface at a large number of places in France and find spots equal in electric capacity, or by digging down far enough in the necessary places reduce all these spots to an equal capacity. Then a disturbance at any one will be noticeable at all the others. It is a simple matter, then, to create a disturbance of short and long duration as desired and thus reproduce the Morse code. The difficulties here are also very great. A rainstorm for example, in one section of the country would be sure to change the electric capacity of the earth in that neighborhood.

It is with relief then, that we turn to a plan such as Marconi's, which seems applicable to all conditions. Whether it works through the ether above the earth or through the ether in the earth or by a disturbance of electric equilibrium in the earth does not matter so much as the fact that results are actually obtained. "If works," says Marconi, "and that is enough."

CONCENTRATED WEALTH.

Dazzling Displays in Treasure Houses of Royalty.

Within the walls of two small rooms at Windsor Castle is stored plate of gold and silver sufficiently valuable to make its owner a millionaire nearly twice over. A single gold dinner-service for 150 guests is valued at £800,000; a golden peacock, whose body quivers in the radiance of hundreds of costly gems, is worth £40,000; a tiger's head of gold, with eyes and teeth of crystal, and a solid ingot of gold for its tongue; monster dishes, stands, flagons, and shields all of pure gold; rose-water fountains, fons, enormous wine-coolers and punch-bowls, exquisitely chased cups, each of which is a fortune in miniature, are all there in profusion.

The Queen's china is valued at more than £300,000; and a single dessert service of Sevres represents a Cabinet Minister's income in perpetuity; while the very jewels in her crown are worth a third of a million pounds. But it is said that two alone among the countless contents of the Shah's treasure-house are worth all the Queen's possessions, costly as they are.

One is a globe of gold, on which all the countries of the earth are marked with mosaics of gems—diamonds, rubies, sapphires, emeralds, and all the rarest of precious stones—to the number of tens of thousands; while, as if this were not a sufficient display of riches, around the pedestal on which the globe stands are piled heaps of enormous gold coins, every one of which is worth £35. The value of this wonderful globe is £1,000,000 sterling.

Near the globe there stands a glass case two feet long and a foot and a half wide and high, which is nearly two-thirds full of the rarest pearls, carefully selected for many centuries; and a single handful of which would a "King's ransom."

These are but two items in the most marvellous collection of treasures the world has ever seen, and the aggregate value of which no man knows. Among other treasures of the Shah are numberless gold vessels, full to the brim of diamonds and emeralds, rubies and sapphires, many of which for size and purity are almost without rivals in the world; swords and coats of armour, all a solid blaze of jewels; and crowns, any one of which might well purchase a small German State.

The Czar of Russia, too, has more treasures than even he can value. The crowns, alone of himself and his consort are said to be worth £300,000; and among the treasures of the Kremlin are rare jewels, every one of which is a history in itself, and gold and silver vessels so heavy that the strongest man cannot lift them.

The Sultan's treasures, too, are so valuable that if he were to take £1,000,000 from them every day for a month there would still be many millions for the next month. Scattered in careless profusion are diamonds which might be measured by the gallon, and a score of the largest of which are of an estimated value of £1,000,000. There are bowls of solid gold full to the brim with pearls and other precious stones; gold plate which weighs many tons; and, in fact, gold and jewels in almost every extravagant and artistic combination that human art can fashion.

Perhaps the richest of the native chiefs of India belong to the Gaekwars of Baroda, whose gems alone are valued at nearly £3,000,000. Among other treasures is a carpet made entirely of pearls and diamonds, all cunningly matched and blended, and valued at a third of a million pounds.

BABOO ENGLISH.

Baboo English is the descriptive title given to the extremely ornate language in which many two-thirds-educated natives of India express themselves. The magazines and newspapers of India are full of it. One periodical says of a certain lawyer's plea, "His childlike simplicity fascinated all, and was proof against the demoralizing influences of his honorable profession." The late G. W. Stevens gives an example of baboo English in his book, "In India." It is a feeble effort to express admiration for the speech of Pandit Madan Mohan Malavaya at a native congress.

His speech is as mellifluous as his name. He has a sweet voice, and is one of the most enthusiastically welcomed of men on the congress platform. Neither tall nor short, not stout but thin, not dark, dressed in pure white, with a white robe which goes round his shoulders and ends down below the knees, Mr. Madan Mohan stands like Eiffel's Tower when he addresses his fellow-congressmen.

He stands slanting forward, admirably preserving his center of gravity. His speeches are full of pellucid and sparkling statements, and his rolling and interminable sentences travel out of his mouth in quick succession, producing a thrilling impression on the audience. There is music in his voice; there is magic in his eye; and he is one of the sweet charmers of the congress company.

Some men enjoy chronic laziness more than some others enjoy a well-earned rest.