

## AGRICULTURAL

### BUILDING UP A WORN OUT FARM.

When we consider that about 25 per cent of the inhabitants of the civilized world are farmers and the remaining 75 per cent must be sustained by the surplus products of the farm we can then realize the importance of keeping the farm in a high state of productivity. Again, considering the difference between a poor crop and one that pays the farmer a dividend, we realize in dollars and cents, why our best farmers are not political croakers, nor do they expect financial relief by legislation. Intelligence and high-class farming go hand in hand, or brain and brawn must be copartners for successful farming, as in all other professions. After twenty years of experience we conclude that the best way to bring up a worn-out farm is by using brain and brawn as principal fertilizers. As use polishes our machine journals, when well oiled, and a reasonable amount of exercise strengthens the muscles, so our farms will grow better and better when we arrive at that degree of intelligence necessary to enable us to assist nature, rather than try to compel her to yield to our dictations. Science and our experience on the farm prove that nature's laws must not be violated or we must suffer the consequences; hence the run-down farm. First law of nature run-down farm. First law of nature; utilize every foot of ground; then remove the old fences, grub out fence rows, so that you can level that ridge caused by plowing out for many, many years, look the field over carefully and systematically, till drain all swamps and low ground, as nature grows a variety of grasses even on one field. Owing to amount of moisture our plants are often foreign to the soil, and wanting an even crop of the same plant, hence the necessity of draining to equalize the elements, that they may serve us the better. Plow this winter, that the action of the frost may assist you in pulverizing. In plowing clay land never cut deeper than the soil and as narrow as the plow will do good work. Haul all the manure you can get during the winter, spreading evenly from the wagon—spuds ashes spread thinly on poorest spots will give good results. Allow no stock on the land during winter or spring. It is better not to pasture your farming land. Now if we have been thorough, we are ready to prepare this land for corn.

Second law—Nature always provides herself with covering. Go to the forest, the fields, the marshes, and praise God, observe just how nature is clothed, and how we find her naked in her natural state. Then we should cover her nakedness with something, and we find the dust match the most convenient. This can be supplied by the use of a spike-tooth harrow, containing until the surface is fine and level. Allow it to be about two days, so that the moisture may arise from below and mellow the ground to plow depth. Continue with spike-tooth harrow, cutting two inches deep, cross-cutting a little deeper. Cross this with a spike-tooth harrow to level and renew the surface. Line the rows straight, three and a half feet apart, going east and west, and very shallow. Corn belongs to the family of grasses and roots very near the surface. Use the best seed, as we must have a good stand to supply the necessary shade that with our dust mulch we may be able to soothe the nature through the summer. This can best be done by planting one kernel every fourteen inches. As soon as planted use spike-tooth harrow, going with rows, cross harrow. When corn is up, harrow again, with same harrow, in afternoon, as harrow will scour and corn will not break off. Nature prefers very fine shovels, set only deep enough to destroy capillary attraction. This is the one thing needful, as evaporation is carried on to the extent of 8,000 pounds of moisture per acre every twenty-four hours, besides an unlimited amount of gases essential to plant growth, hence fertility of soil. In order to obtain the best results with the least possible waste of fertility we must continue to mulch throughout the season. While in this condition moisture in nature's best pulverizer; it also relieves nature of the necessity of throwing out a crop of weeds to protect herself when neglected by poor farming. This line should be continued until corn is ripe or time to sow wheat. This gives you a mellow, moist seed bed, far better than early plowed fallow allowed to burn out or grow a crop of weeds. Sow wheat as early as September 10 to 15, the latter date being preferable in this latitude, as Hessian fly is gone September 20, thus increasing chances of an even growth. Sow between corn or cut and shock. We would prefer the former as corn would furnish shade until wheat is up. Next spring sow clover, one bushel to four acres, sowing both ways to get the seed evenly scattered, when the ground is honeycombed with frost. Thus increase your chances of a good stand of clover, the best and cheapest fertilizer the farmer has. About August 10 run over field with mower, cutting clover and stubble about three inches high. Remove swath stick so that cuttings may fall evenly over the ground, giving the field a good mulch and causing the clover roots to strike deeper in the soil. Do not pasture clover, as this is the most destructive practice indulged in by the farmer. In the following summer cut hay as early as convenient, that you may obtain a good second growth for seed, or, better still, to be plowed down with what manure you can obtain the following winter for another corn crop. Increase your supply of manure by feeding hay,

fodder and straw, with cheap grains to well-bred stock; in short, sell nothing but finished products from the farm and within a few years you will have a clean and fertile farm, plenty of fine stock, a good balance on the right side of the ledger.

### KEEPING REASONABLY CLEAN.

All efforts at agricultural reform of any kind must recognize that the same elegance and fancy care which are a satisfaction and even a good financial investment for a few men under special conditions, cannot possibly be used by the great mass of farmers. But it is, probably, feasible for any one to see that his stable is well ventilated, and a gutter kept behind his cows with enough bedding so that their tails, thighs and even udders are not saturated with excrement. Then, before milking, each cow's udder and flank should be well brushed off, or better, moistened with a damp cloth, so that particles of manure and dirt will not fall into the pail, thus seeding the milk with countless germs. It will be seen that these suggested precautions are far short of what we would have to do if we sought to get really clean milk.

### WATCHING OUT FOR POOR FLAVOR.

Few buttermakers realize apparently the necessity of exercising the greatest care these days in the methods they employ in the manufacture of butter. At this season of the year the cows eat more or less frozen grass, which naturally tends to give the milk a bitter flavor, and this in turn is imparted into the butter. Of course buttermakers can't avoid this, but they can do much toward convincing farmers of the harmfulness of allowing cows to eat of frozen food. They should too, take extra precautions in caring for their cream and in churning, working and salting their butter. Because a mark has been fancy is no good reason that it will sell readily unless it is always fancy. The true that not infrequently a buyer of a mark which has always been of fancy quality will demand an examination, but he soon discovers any fault there may be with the goods and it would take more persuasive power than most dealers possess, to get him to again take the mark without first examining it.

### ABOUT THE HORSE.

Horses that have had little to do throughout the winter must be worked in by degrees. Their muscles are soft and need special care to prevent galled shoulders and other disabilities. Heavy shoes with long, sharp calks are worse than useless on soft ground and earth roads. This fact is so self-evident that it is surprising to see how little it is heeded. Shoes with low calks or none at all, and heavy enough to wear four or five weeks are all that is needed. Some horses will not drink if water is offered them before their morning feed. This is generally the result of having been given water icy cold or none at all. But if a horse is allowed to drink his fill soon after eating the food is washed, undigested into the intestines. A horse that will not drink before eating should be made to wait at least an hour after. Water frequently while at work. Leave the fetlocks untrimmed. They are put there to protect the heels, and if cut away scratches, mud fever and cracked heels are likely to ensue. No horse can pull as much or as well when checked up as he can with his head free.

### LEITER'S NEWEST DEAL.

Young King of the Wheat Pit to Invest in Mining Shares.

A special from Chicago says: Levi Z. Leiter is out for gold as well as wheat, and on a scale that is likely to eclipse any previous operations in the North-West Territory. It was announced on Friday, that Mr. Leiter, John W. Mackay, Ogden Mills and the Duke of Teck were associated for the purpose of hunting for gold. Mr. Leiter admitted that the report was true. He said he was not familiar with the details, but that operations would be conducted on a large scale and on valuable concessions in the North-West Territory secured by Mr. H. Maitland Kersey, former agent of the White Star Steamship Line, who was familiar with the country and had experience in mining. He also said that there were others interested in the plan, some of whom were of high standing and great influence in England. The details have been left entirely to Mr. Kersey, who has had the properties in question in his eye for some time.

"I believe," said Mr. Leiter, "he has excellent opportunities for satisfying himself as to their value and I should judge from what he has said to me that they are promising. He is about to leave for Europe for the purpose of completing some business arrangements in connection with pushing the plans, and upon his return he will carry them into effect with as little delay as possible."

"As to the amount of money to be invested, I cannot say, nor how much I shall put into the venture. However, I think there will be no scarcity of funds for carrying out whatever project Mr. Kersey may consider advisable."

"I have much confidence in his estimates. It may be possible that future developments will indicate the wisdom of extending the field of operations, but as I understand it now, nothing but mining is under consideration."

## YOUNG FOLKS.

### SLUMBER TOWN.

Wink-a-blink! A sleepy boy  
Carried off to bed;  
Mamma's pride and papa's joy—  
Little curly head.  
Nid-a-nod, and wink-a-blink!  
When the sun is down,  
Then it's time to sail, I think,  
Off to Slumber Town.

Wink-a-blink! A little face  
On the pillow white;  
Smiling up in sleepy grace,  
Lipsing low, Good-night.  
Wink-a-blink, and nid-a-nod!  
Bless his curly crown.  
Keep him safely, gracious God,  
While in Slumber Town.

### AN ANT'S HEROISM.

A philosopher and lover of nature has recently written an account of a personal experience which is very unusual and worthy to be quoted. We have hitherto associated heroism with telephants, dogs and horses, but never before with insects. The following incident will prove to us that nobility exists where we least expect it, and it will stimulate every reader to a more careful and deferential study of nature.

"The sun was just setting when I returned, slightly fatigued, from several miles' ride on my wheel. As is my custom on returning home, I took my garden hose and turned water into a small trench which had been dug round a maple tree for the purpose of holding water sufficient time to permit the earth adjacent to the roots to become thoroughly soaked.

"Sitting down, my attention was soon called to a group of small ants rushing hither and thither in an endeavor to escape. The bottom of the circular ditch being covered, about twenty of the ants sought safety on a large clod of earth. At first they were scattered about over the highest part of the little mound, and to all appearance were indifferent to their surroundings.

"After a little, one of the number proceeded leisurely around the little island, and after finishing the circuit, hurried back to his companions. It appeared that they then, for the first time, realized that they were surrounded by water. The survey was repeated several times in quick succession. The group of ants gathered more closely together, and seemed to be in a state of restless anxiety. As the water rose the circuit grew less, the vigil more earnest, and the excitement more intense with each return of the sentinel. They rushed about over each other in a terrible state of agitation, for the water was rapidly approaching. There was now hardly room for them to stand on; just a little while, and that would be under water. They ceased struggling, settled down into motionless inactivity, and seemed entirely resigned to their fate.

"I picked up a little stick and laid it across the water, to the point where the ants were. They seemed dazed, and did not instantly take advantage of the means of escape afforded them. One then crawled hurriedly up on the stick, went its full length out, and over the blades of grass to the dry land. Without a second's hesitation, he turned and retraced his steps back to his companions. Now the smallest one of the group returned with him to dry land. They both retraced their steps, and the work of rescue began. The rest seemed passive, entirely subservient to the will of these two. Each, with a companion, hastened out to a place of safety.

"The small one was much the more active, he rescuing about three to the larger's two. Time was precious, as the water was rapidly rising; it would soon be running round the outer end of the stick, and the island was melting away. One by one they were taken out, the guide accompanying the rescued one each time to a place of security.

"Why they did not all follow the first one out when he returned puzzled me, but they did not. The smaller one hurried forth with the last ant. Still he was not content, and rushed back to search for others. The little hillock was now melted away, and he turned to seek safety for himself. He did not seem as much concerned as before. He did not hasten on as when conscious of rescuing others. The water was running round the stick. The last avenue of escape seemed closed to him forever. He went to the highest point and settled down perfectly still. His previous conduct convinced me that he now fully realized that the case was hopeless as far as he was concerned.

"Must the bravest of them! thus die, when he could easily have made his escape long ago! He willingly risked his own life that he might save others. Could a more genuine case of heroism be found in human annals? Could a more striking example of brotherly love and unselfish devotion be shown? Could a more earnest solicitude for the life of others be instanced? I think not.

"Within his own power this little insect had no possible means of escape. He did not fear death; neither did he die, but he was the last to escape. I lifted the stick from the water and laid it on the ground. He crawled hurriedly away to his companions who he had so recently torn from the grasp of death. Whatever I may have done for them, I can but feel that in his example the little hero ant did much more for me."

### BABY ROBINS.

"I never fought they'd be so ugly, mamma." The sorrow in the little face, was so real, the disappointment so keen that Mamma Ray, with a half

smile took girls up on her lap for a little comforting talk.

You see, Nellie Ray had lived where there were no robins and blue birds and wrens, and she had never seen a real bird's nest with real eggs in it, until this very spring and she could not cease wondering about the building and the builders and the baby birds to be. She was, especially, interested in a robin's nest built upon a limb so low that she could drag a chair into the orchard climb up and peep within.

"Such sweet blue eggs!" she would exclaim. "I wish the darling birdies would hurry." But they didn't hurry a bit, and she had to content herself for many days with papa and mamma robin whom she liked very much, though she didn't think them quite so shrewdly dressed as became little folks. No doubt but baby robins would be arrayed in bright and dainty garb.

Was it any wonder that the child was disappointed when the pretty eggs gave place to a wriggling mass—of what? "No feathers, no eyes, no noffin but movs," she informed mamma, when she slowly and sadly returned to the house.

"Once upon a time," began mamma's talk, "there was another baby bird who wasn't the least bit in the world pretty—just a scrawny little thing whom no one cared to notice. The mother bird would sometimes feel at other babies and say, 'How sweet, and cute, and never have a good word for her poor birdie, but she loved it just the same, and fed it and cared for it until after awhile it began to grow and look quite like other baby birds. Then people would come to see it and they would say, 'Is it possible this is that ugly little bird I saw once before?'"

"Then the mother bird felt badly again to hear people praise her little one just because it looked pretty, never thinking that it was as sweet and good and dear before as now. Mother Robin doesn't care how her babies look—they're the dearest, best in all the world to her. Some day they'll be neat and pretty as their mother is, but she loves her 'ugly' birdies just as I did mine."

"Was it that ugly birdie mamma?" exclaimed Nellie, as she caught the meaning of the story; but mamma only smiled in reply.

"Well, I shouldn't fink you'd loved me much. I spect I'll have to love the baby robins—but I don't want to see them any more—just right away."

### LAST YEAR ABROAD.

Some of the Events Which Have Taken Place During 1897.

The most important foreign events on this side of the Atlantic are those in connection with the insurrection in Cuba. There have been the usual number of risings in the Spanish republics.

Save in the east, Europe has been for the most part tranquil. England has celebrated with great enthusiasm the sixtieth anniversary of the accession of Queen Victoria. France has formed an alliance with Russia. The events in Germany have not been of an exciting nature; but the empire has continued its policy of peaching out for possessions in all corners of the globe.

Spain has been occupied the whole year with her Cuban problem, and with trouble in the Philippine Islands. The murder of the prime minister Canovas led, shortly afterward, to a change of ministry and the advent to power of Senor Sagasta, under whose leadership highly liberal reforms have been offered to Cuba.

There have been exciting scenes in the lower house of the Austrian Reichsrath, caused by differences between the races that compose the Austrian members of the dual monarchy, and the unity of Austria and Hungary has at times seemed in imminent danger.

A revolt in Crete against Turkey moved Greece to espouse the cause of the island. But in a short campaign Turkey defeated the Greeks. The great powers forced the sultan to stay his hand and not push his military advantage too far; but they allowed him to impose onerous terms of peace on his crushed enemy.

The progress of the Siberian railway across the continent of Asia; a famine and a visitation of the plague in India; a "little war" between Great Britain and the tribesmen on the north-western frontier of its Indian possessions; a trouble, not yet composed, between Germany and China; and a dispute, happily in process of settlement, between Japan and Hawaii; these are the most interesting events in Asia.

On the whole the foreign corps have not been good; yet not so bad as to bring wide-spread distress. Nevertheless they have failed to such a degree as to make more valuable our own large crops, and thus to give a great impetus to the most of our industries.

### JUST HIS KIND.

Wearly Wiggins—Seeing that I'm always on the road I thought it would be a good idea for me to get a play to travel in, and I want you to write it.

Playwright—What kind of a play do you want?

Wearly Wiggins—Oh any old kind that's got a meal in every act.

### WHY SHE REFUSED.

Spatts, moodily—No; she won't have me. When I proposed I said I should not be able to marry in less than two years.

Bloobynner—Did she object to the delay?

Spatts—She didn't mention that as an objection, but said that she was going to marry Tommy Cash in about three months.

## SWEARING TO TELL THE TRUTH.

How the Ceremony of Taking the Oath is Performed in Many Courts of the World.

In most pontifical countries the practice of kissing the book is unknown, the ceremony of oath-taking being more akin to the Scottish than to the English form. A French witness has a very simple ordeal to pass through before unfolding his tale. The Judge, seated beneath a crucifix, says, "You swear to tell the truth, the whole truth, and nothing but the truth," and the witness, lifting up his right hand, answers, "I swear it." In Austria a Christian witness is sworn before a crucifix between two lighted candles, and, holding up his right hand, says: "I swear by God the Almighty and All-Wise that I will speak the pure and full truth, and nothing but the truth, in answer to anything I may be asked by the court." Jewish witnesses, while using the same words, add to their solemnity by placing their hands on the page of a Bible on which is printed the third commandment. A Belgian witness swears to be veracious in these words: "I will speak the truth, the whole truth, and nothing but the truth, so help me God and all the saints."

In Italy the form is much the same, but the use of the Bible imparts a greater degree of solemnity to it. "I will swear to tell the truth, the whole truth, and nothing but the truth," exclaims the Italian witness, resting his hand upon an open Bible.

### THE SPANISH OATH.

is more elaborate. The witness, kneeling on his right knee, places his hand on the sacred book, and being asked by the Judge, "Will you swear by God and by these Holy Gospels to speak the truth to all you may be asked?" answers, "Yes, I swear." Thereupon the Judge says: "Then if thus you do, God will reward you, and if not, will require it of you." In some parts of the country the ceremony is different. The witness forms a cross by placing the middle of his thumb on the middle of his forefinger, and kissing his thumb—a practice which would probably be very familiar to some English witnesses—exclaims: "By this cross I swear."

The most curious European oath is administered in Norway. The witness raises his thumb, his forefinger, and his middle finger. These signify the Trinity, while the larger of the uplifted fingers is supposed to represent the soul of the witness, and the smaller to indicate his body. Before the oath is taken a long exhortation is delivered, the most material parts of which are as follows: "Whatever person is so ungodly, corrupt, or hostile to himself as to swear a false oath, or not to keep the oath sworn, sins in such a manner as if he were to say: 'If I swear falsely, then may God the Father, God the Son, and God the Holy Ghost punish me, so that God the Father, who created me and all mankind in His image, and His fatherly goodness, grace and mercy, may not profit me, but that I, as a perverse and obstinate transgressor and sinner, may be punished eternally in hell. If I swear falsely, then may all I have and own in this world be cursed; cursed be my land, field, and meadow, so that I may never enjoy any fruit or yield from them; cursed be my cattle, my beasts, my sheep, so that after this day they may never thrive or benefit me; yea, cursed may I be and everything I possess.' If the law's deliverance is among the grievances of the Norwegians, it would not be difficult to trace it to the "good mouth-filling oaths" that precede the real business of their courts.

For real picturesqueness in oath-taking the courts of

### LESS CIVILIZED COUNTRIES.

must be visited. Like the soldier in Jacques's familiar speech, they are "full of strange oaths." The people who have shown themselves to be most resourceful in the making of oaths are the Chinese. Slicing off a cock's head is one mode of impressing a Chinaman with the importance of telling the truth; breaking a saucer is another; blowing out a lighted candle is a third. The beheading of the cock is supposed to represent the fate of the liar; the cracking of the saucer and the extinguishing of the candle indicate what will happen to the soul of the witness who does not tell the truth. In Mohammedan countries every witness holds the Koran in front of him, and bends down until his forehead touches the sacred volume. The position of the body is of the utmost importance in most countries, but in none has superstition left the supreme conscientiousness that distinguished the Irish witness in the days of the Brehons. He took three separate oaths, the first standing, the second sitting, and the third lying, as these were the positions in which life was spent.

Many Indians are sworn on tigers' skins, in the belief that if they defile their lips with lies their bodies will become food for tigers, while others stand upon a lizard's skin, and ask that their bodies shall be covered with the scales of the reptiles if they forswear themselves. The Burmese witness, who requests to be destroyed in no fewer than five different ways if he is guilty of perjury is not content that the punishment should fall upon himself alone. He includes his relations, "Let us be subject," he prays, "to all the calamities that are within the body and all that are without the body. May we be seized with madness, dumbness, deafness, leprosy, and hydrophobia. May we be struck with thunderbolts and lightning and come to sudden death."