FARM, FIELD, GARDEN.

TOPICS OF INTEREST TO COUNTRY AND SUBURBAN READERS.

Reasons Given by American Cultivator for the Continued Popularity of Wheat as a Farm Crop—Wheat Growing as a Part of a Successful Rotation.

Wherever wheat can be successfully grown it is certain to be an important farm crop. The past year the average left for spring and winter wheat remained about the same, but had somewhat diminished the crop. There is no sign anywhere of the abandonment of wheat growing in any locality where it has heretofore been successful, but rather of more general attention to this crop. The reasons for the continued popularity of wheat is that its cultivation admirably supplements other crops in the rotations usually adopted. Neither potatoes nor oats pay a profit as winter wheat, and so much can be sown not only the clovers which succeed only in spring, but also timothy and other grasses which do best when sown in the fall. As a seeding lasts two, three or four years, the importance of having a good stand from the first can hardly be overestimated. Were the clover or grass seedling in good words, half the chance to grow. The often makes a great difference in cultivation of hoed crops when the ha this will needed come to be plowed again. The better the soil the more fertility has accumulated, and the fewer weeds there will be to fight.

Growing winter wheat has a further advantage for large farmers in the fact that it enables them to sow a portion of their acreage out of the way the previous season so that nothing need be done to it except to harvest the crop. By delaying the bulk of manures to the spring hoed crops, corn and potatoes, the farmer can get off each year one-fifth or one-sixth of his land to wheat, doing the work when he and his teams would otherwise be idle. He can thus grow as large spring crops as if he had devoted the whole of his farm to them. Wheat can be as well fertilized with commercial and mineral manures as with those from the stable. If, however, wheat is sown the land is seeded with clover the soil will continue to improve while the stable manure is applied to crops that pay better while they are less favorable for maintaining soil fertility.

As far as possible wheat farmers should sell only the flour of the wheat they grow. As a rule they generally sell wheat as grain, but they can easily be again as much when bran and the siftings as the grain would make and feed it out to their stock. Doing this wheat will not be found exhaustive to the soil, and when clover is always sown with it the two combined may be fairly considered beneficial to soil fertility.

Horses That Never Ought to Be Clipped.

There is a class of horses that never ought to be clipped, excepting when some skin disease or other disordered condition demands it. This applies to lack and ish horses that fully stand idle to expensive stands waiting orders, often for an hour or two at a time. It applies also to animals that stand idle a great deal in cold stables, heavy and slow working horses, hoed mares, especially if well attended, and those that perspire easily, not from the superabundant coat, but from some obscure disease, some debilitated or perhaps hidebound condition, where the surroundings, age and value of the animal would make it inadvisable.

The same class of reasons apply to the clipping of the legs. Judgment must be used in this also. When the climate is wet and the roads muddy it is certainly an advantage to keep the hair from the ankles down short, as it dries more readily, and the mud and dirt are more easily removed, boasting materially the liability to irritation of the skin at the extremities.—Horse Breeder.

Farm Notes.

The notes here appended from Farm Journal are worthy of notice:

Time in cows lasts to do the milking are a failure. They spoil the beats.

A bad smell in the stable will often spoil the milk from the cows in it to more or less.

Rub the swollen udder of a cow with warm linseed oil. Take twenty minutes to do it.

If sheep have the snuffles their noses should be washed with soapsuds and then warm tar smeared on them.

The feet of the sheep should be carefully looked after. If the toes are long, cut them off. Do not wound the foot in doing.

Land Plaster in the Barn Yard.

Several years ago Hoard's Dairyman started the agitation among dairymen relative to the use of land plaster in stables and the manure heap for the purpose of absorbing the ammonia. The practice is growing rapidly, and a number of farmers who have used it in the barn yard are greatly pleased with the results. Lime should not be used, as it is the effect to set the ammonia free, whereas plaster absorbs it.

Horse Notes.

When it can be done it is better to make a horse half an hour before feeding rather than after.

Too much feed is as bad for the health and thrift of horses as too little.

Horses should be turned out into the air for exercise every pleasant day.

One third each of corn, oats and barley ground together makes a good winter ration.

Careful grooming is as necessary during the winter as in the summer.

Keeping the horse's heels and legs free in winter is the best preventive for cracks.

If you raise the right kind of horses the horse will come after them if the kind you will have to hunt up a horse.

A small quantity of oilmeal added to a horse's meal during the winter will be found naturally to keep them in a good healthy condition. The best plan is to mix it with a little wheat bran.

Oats will make a better growth and development if they are given a light feed of ground oats every day. Oats are one of the best foods for the development of bone and muscle.

Hoed mares can do enough work to pay for their keep, and by mating to a good sire will bring good colts, which will be clear profit.—Republic.

OF INTEREST TO BEEKEEPERS.

Prominent Apiarists' Opinions on the Spacing of the Combs.

Numbered with other interesting questions discussed at the last meeting of the International Beekeepers' association was the much vexed one of how far to space combs. Consideration was first given to the natural space between combs. While some of the members present were of the opinion that the bees followed no rule in spacing the combs, the majority appeared to hold that the preference of bees in a natural state was one and a half inches.

Ernest R. Root made the statement that the average found in nature was one and a half inches for brood and ample combs when taken together. His observation was that naturally built combs are spaced all the way from one and three-eighths to two and a half inches, but he believed that bees in a natural state preferred one and a half inches. He also believed the bees would put more brood and less honey in the brood nest if they were only one and three-eighths inches apart.

William Lyon, of Burlington, Ia., had found, as the result of considerable experimenting in the matter, that it is a good plan at the opening of the season to contract the space between combs, so near as one and five-eighths inch, in order to enable, to prevent the storing of too much honey in the brood chamber. He found that this narrowing up of the space would drive the bees into the sections better than anything he had ever tried. He moves his frames together every spring, and moves them apart again in the fall, so that the combs get filled with honey for winter stores, and the bees get more room between the brood combs to cluster. He attributes his success in getting bees into the sections to this method.

A. S. Drane and Dr. Mason reported success with spacing the comb one and one-fourth inches from center to center. This was generally considered as being too close. Mr. L. C. Axtell favored one and three-eighths, and also R. Taylor and some others.

A. I. Root expressed the opinion that one and one-fourth inches apart does not give sufficient room. He did not believe the bees were at ease in so close a space.

J. M. Hamberg said that what the beekeeper wants to know is how to produce the most honey. As one and a half inches gives better space for winter, owing to its affording more room for the bees to place their honey and to cluster, he considered that space the best for practical beekeepers.

Do Fertilizers Leach?

The complaint is often heard that the phosphates do not produce the effects upon crops that were realized from their early use, and the conclusion that the phosphatic manures have degenerated in quality is drawn from this assumption of facts. The facts as laid down in the Florida Dispatch are: 1. That the phosphatic compounds are of higher grade than those sold fifteen years ago. 2. That their effect is equally marked upon lands to which none has been previously applied. 3. Lands to which repeated liberal applications have been made contain enough of the superphosphate of previous applications to supply the needs of the crops.

The land is a type of soils which contain enough clay to prevent injurious leaching. We infer, then, that phosphates applied to clay soils, or sandy soils with good clay subsoils, are held until used by plants, or at least the larger part of them. On such soils, therefore, heavy annual applications are not wasteful. On sandy soils, without clay foundation, however, heavy applications are not advisable, since that not appropriated by the crops in which it is applied may leach beyond the reach of the roots of cultivated plants.

Shines in Dark Stables.

It is suggested that the sight of horses is injured by keeping the animals in dark stables, and that when the harness is put on them, and they are suddenly brought out to the light, the pupils of the eyes are suddenly and painfully contracted, and a repetition of such treatment is very injurious. Owners of horses who work would, "instead of sending the light and air" to themselves should not impose on their faithful horses. It is very easy to have well lighted and well ventilated stables.

Standing in wet manure tends to make the feet of the horses tender, and should always be avoided.

Change the feed often enough to keep the horses with a good appetite; they will thrive better on less food.

A Ship That Cannot Sink.

Capt. George Musson, a sea captain, who has earned the leisure which gives him time to pause and let new ideas flow into his brain, has invented an ocean steamer that he claims will be absolutely unsinkable. Capt. Musson lives at Chelsea, Mass.

The founding of the fleet steamer Oceanic some years ago set the captain to thinking how such vessels were constructed. He examined one of the most famous passenger ships afloat, and pronounced it not half built. The so-called water tight compartments, he claims, are no good. They are nothing more than divisions of the ship's hold itself, and an effusion as hot they are filled with freight. These might answer as well be no compartments at all, for all there is between the sea and the passengers are some layers of iron plate, an inch to five-eighths of an inch thick.

Capt. Musson's idea is a ship within a ship. First the vessel should be built as usual, from top to keel. Then outside of her hull, at proper distance, an other iron hull should be placed as a skin or cover inclosing the first. There should be sufficient space left between the two to construct all the different water tight compartments necessary to absolute safety. Then, when the outer hull had a hole made in any of its compartments, there would still be other compartments, and if the whole outer shell were torn away there would yet be to the entire ship as safe as all vessels are now.

The principle is the safe one that a certain amount of contained air is bound to keep up a certain amount of buoyancy. The captain thinks his invention especially valuable for naval vessels.

How Electricity Is "Stored."

The energy which a current may at any instant be said to possess is immediately transformed into heat in the circuit, which will under certain conditions produce light; into chemical energy; into motion, which may or may not produce sound, or into magnetic and electrostatic conditions. The heat may either be permanent or have the same evanescent existence as the original current.

When electricity is employed to change a storage battery, only that part which is transformed into chemical energy is used. The rest is dissipated. The battery, then, instead of being a place where electricity is laid away, is a place where chemicals are left by the current, with the expectation that they will in turn produce a current when called upon. This may seem a fine distinction, but it is only apparently so.

For instance, the current might be produced by a steam engine turning a dynamo. The current thus produced by it might be used, deposited from a solution of zinc sulphate. This might be transported, preserved, bought and sold, and finally be employed by some other dynamo to produce another current. Were the electricity itself stored in its original form, then the imaginative reader can best tell what would become of it and how it must be handled.—Professor Samuel Sheldon in Popular Science.

The "Neck Verse."

The "Neck Verse" is the first verse of the fifty-first Psalm. "Have mercy upon me, O God, according to thy loving kindness; according to the multitude of thy tender mercies blot out my transgressions." It was so called because when a criminal under the English law claimed the "benefit of clergy" the verse was read as a test. The only evidence of the condemned being a priest was an ability to read, and if he could read this verse his neck was safe, for no civil court could send him to the gallows. The low corrupting clergy from civil penalties was established during the reign of William Rufus, and continued in force till about the middle of the Seventeenth century.

It was often abused, for kindly disposed clergymen would frequently teach persons unjustly accused the verse in question, and even render their assistance in repeating it in court, but the decree of the law was the not and result of a change in public sentiment with regard to the responsibility of the clergy and of the more general diffusion of knowledge, so that an ability to read was no longer regarded as an evidence of having taken clerical orders.—St. Louis Globe Democrat.

Silk Stockings.

Queen Elizabeth started the style of wearing silk stockings, and when some kind and loving husband looks over his wife's bills at the end of the month, with silk stockings all the way from 65 up, he can think of Elizabeth and shudder. As a matter of fact the silk worm began to kick up its heels in early Greece, and then gradually worked its way into Italy, and in the time of Henry II of England the silk era was beginning to dawn. Silk stockings in those days, however, were few and far between, and when a pair of them was presented to Edward VI by Sir Thomas Gresham the king hugged himself with joy. Queen Elizabeth got her first pair from her silk woman, Mrs. Montagne, and after she had worn them once she declared she never would go back to cotton, which is all the more extraordinary, as Elizabeth had no husband and had to pay her own bills.—Cloak and Suit Review.

The Oldest Game of Ball.

Court tennis is the oldest game of ball that we have—that is to say, it goes back farther in its present form than any other.

Games of ball of some kind go back so far that there is no trace of their beginning. In their simplest form the ball was thrown from one man to another. If we carry the process one step farther and imagine the ball, or whatever stood in its place, to be hit back with the hand, instead of being caught and thrown, we have at once hand ball, the original of all games like tennis, rackets, etc. Indeed, the French name for tennis remains paume to this day, because the ball was struck with the palm of the hand.—James Dwight in Scribner's.

Discoverers.

The anecdotes told at the expense of amateur players are innumerable and of course of varying degrees both of truthfulness and of drollery. Not long since another was added to the list by some Harvard students, who amiably took a rehearsal of Shakspere's play "Hamlet" for the benefit of a charity.

The man who was to act the part of Horatio was extremely timid, and when the night of the performance came he was so overcome by stage fright that he could hardly remember the lines he had so carefully studied. In the first act he ran upon a snag, which raised a laugh, and for the rest of the piece he was utterly hopeless, and had simply to be pushed through the part.

It was in the scene where Horatio and Marcellus tell Hamlet of the appearance of the spirit of his father, and the prince asks, "Stood it long?"

"While one with moderate haste might tell a hundred," Horatio managed to stumble out, but so confusedly that Marcellus forgot his cue, and instead of rejoining "Longer, longer," stood staring at Horatio.

The prompter, with a view to helping out Marcellus, began to whisper from the wings, "Longer, longer." Unfortunately Horatio, having lost all control of himself, was inspired with the idea that the man playing Marcellus was looking at him because he had made an error, and that the words from the wing were addressed to him. With a great effort he straightened himself up, cleared his burning throat and said loudly, "While one with moderate haste might tell two hundred, then."—Youth's Companion.

The constant, in finite space, of Force was once defined by an old lady as "the quantity of matter in the universe which had entered it for the first time." Force, as we know, is not quantity, perhaps we know it is somewhere that one or the quantity of matter in the universe is, it is, however, frequently not their quantity, which is, perhaps, we know, not quantity, which is, perhaps, we know, not quantity, which is, perhaps, we know, not