AGRICULTURAL.

TOPICS OF INTEREST RELATIVE TO FARM AND GARDEN.

DOUBLE WALLS FOR BEE HIVES.

With proper protection bees will winter out of doors better than in the cellar. This is given by making the walls of their hives double. This keeps the bees at a nearly uniform temperature, whatever the weather may be outside. In a sunshiny winter's day the bees are not tempted to fly, as they are when kept in hives that have only one thickness of wood. The old-fashioned straw hives were not bad ones for wintering bees. The moisture from the inside worked off through the straw, and the bees were not prematurely started into activity.

FORETHOUGHT OF GOOD SEED.

By planting poor seed farmers waste millions of dollars each year. The season of 1890 will be remarkable for this loss. Wet weather hindered ripening and successful harvesting of garden seeds. Severe cold, the earliest ever known, over a large area of the United States, found considerable of the corn crop in the fields in a damp condition, which doubtless injured the germ and rendered it worthless for planting. Potatoes, to a great extent, were blighted, causing the vines to decay before skin had set on the tubers. Bad as such will be for seed, many farmers will make a bad matter worse by planting small potatoes that were set but a few days ere blight struck the vines. Such seed will not produce three-fourths as much as fully ripened tubers.—*New York Tribune.*

ECONOMIZE IN FEEDING.

Many a farmer defrauds himself and wastes his substance by lack of discrimination in feeding his stock at this season. Some one has pertinently said that the average farmer cleaves to the ideas of his ancestors and feeds out his winter supply alike to his mixed herd, equally surprised if this one gains or that one loses. He does not feed grain "because he cannot afford it," and he will not raise it because he can buy it cheaper. His animals are simply machines for converting crops into fertilizers. Instead of keeping a few at a profit he keeps many at a loss. But whatever our calling in life, we should always be ready to lift a hand against this ruinous practice. With the means at our command, better things are expected of us than simply to follow the footsteps of our fathers. Economy in feeding is the great study of to-day, and if we do not contribute of our individual mite upon our own heads and it will be deserved.—*New York Witness.*

ROOT PRUNING.

Different methods are sometimes adopted by orchardists and others to induce greater fruitfulness in shy bearing trees. Not infrequently trees are slow in coming into bearing and expend their forces in luxuriant leaf and branch growth, rather than in fruit. Root pruning acts like magic sometimes in bringing barren trees into a bearing state, especially when unfruitfulness is brought about by undue luxuriance. When trees are making very strong shoots they are found on examination to be making roots in proportion, and so long as this goes on fruit prospects are very much jeopardized. It is the small fibrous roots which command the formation of fruit spurs, and in some soils there is difficulty in maintaining a fruitful condition. In gardens where the surface is light and open, with a clayey subsoil, there is a tendency for the roots to go deep in search of moisture, especially if the aspect is at all open and windy. On such soils mulching is of considerable value so long as it creates and maintains moisture.

By depriving a tree of a certain portion of its roots, its too rapid growth is checked and the young branches and buds assume a more fruitful character. That excessive root pruning will injure a tree is shown by the fact that when a young tree in its early bearing season is taken up and removed to another place it almost invariably receives a shock from which it never fully recovers. From this we may learn that there is a natural balance to be observed that may not be too severely interfered with, either by root or branch pruning.—*Vick's Magazine.*

UNEQUALLY YOKED TOGETHER.

How often one sees teams unmatched in size—one small, ill-fitted for heavy service, the other strong enough to haul his part of 5000 pounds on any ordinary road, and each horse drawing an equal share of the load. If the driver is asked why he does not give each horse an equal share of the draft according to his weight, he may perhaps answer that the little horse is fed just as big a ration as the large one, and he must take his chance. Perhaps the small horse is getting at least one-fourth more grain than his stomach will digest, and would be far better off with less grain; while probably the ration too large for the small horse is not sufficient for the large horse. Thus we may find teams driven for years at service which would be easily performed by the larger horse alone, if judiciously fed, while the small horse, whose lot would be hard enough under any circumstances, is made to suffer still more from overfeeding. Each horse in the team, if sound and of age for good service, should in general be made to perform his share of the team's labor according to his weight.

To accomplish this in a simple manner, the hole in the double whiffletree, or evener, by which it is attached to the tongue of the wagon, should not be midway between the two ends, but so far from the middle point that the distance from this hole to one end will be as much greater than the distance to the other end as one horse is heavier than the other. If, for example, one horse weighs 1200 pounds and the other 800 pounds, then, one horse being one-third heavier, one arm of the evener should be one-third longer than the other. Then hitch the heavier horse to the shorter arm and the lighter horse to the longer arm. It is true that horses will not always draw in proportion to their weight; a small, wiry animal may work more easily than a large, loose-built one; and if the owner can make due allowance for this, so much the better; but even if he should leave this out of consideration, give up guesswork in equalizing the draft and do nothing more than is shown above, he will be surprised to find how much of an unfair advantage he has been giving to the larger horse.—*New York Tribune.*

MISTAKEN USE OF CLOVER.

In wheat growing localities the old-fashioned practice of plowing under clover every other year and growing alternately with it a crop of wheat, was at the time thought to be the perfection of good farming. It was not considered to be an exhaustive rotation. Was there not every other year a clover growth, mainly secured from the atmosphere, to replace what the grain crop took from the soil? Further experience has shown the fallacy of this reasoning. Green manure necessarily cannot make additions to mineral fertility of the soil. If every atom is turned back to the soil without waste, it gives only the mineral elements first taken from the soil. The grain crop was always sold, and if the farmers kept work horses and a few cows the manure from these, fed mainly on hay, cornstalks and straw, was duly drawn upon the land. It was not rich manure, and was usually especially lacking in phosphates. Most of these wheat growers have for fifteen or twenty years been purchasing mineral manures to replace those that were exhausted.

The trouble began when even a large clover crop plowed under would not produce a large crop, while without the clover good wheat could be grown with a dressing of 200 pounds of phosphate drilled in with the seed. This convincing proof of the benefit of mineral manures opened the eyes of many farmers who had not before doubted that their two-year system was not keeping up their farms to the proper standard of fertility. Yet ever since, though more stock has been kept, and clover has been fed out and thus made into manure, the buying of commercial fertilizers has continued. In fact, it is easy to see that this method restores less of plant food than did the plowing under of clover under the old practice. Wheat and other grain are sold as before, so that the difference is that the summer fallow gave the land the entire clover growth, while the policy of feeding it to stock saved for the soil only what was left after it had passed through animals eating it, and had contributed to growth, muscle, milk, wool or other animal products.

It is clear, also, that the best use of clover is to feed it at home on the farm, and with it enough of grain, oil meal or other nitrogenous food to make a rich manure pile. But if oil meal and grain are to be bought for farm use, it will require a much better class of farm stock to make it pay expenses. So that, even for securing the fullest advantages from clover growing, there must be better stock, which, in every way it can be looked at, is seen to be the basis of improved farming.—*American Cultivator.*

It is a good feeder who is able to judge of the quality and feeding value of foods at his command.

It is said that vegetables put into a barrel or box and covered with earth keep crisp and nice.

It makes all the difference in the world whether the man runs the farm or the farm runs the man.

Don't ventilate the poultry house through cracks in the walls and floors, and holes in the roof.

No system of buying and selling or swapping animals will improve the stock of the country. It must be bred up.

Forest leaves are not as good absorbents as straw, but they add very much more to the value of the manure pile.

There is no sense in keeping a hog up fattening after it is already as fat as it can be. It is a waste of food and time.

Don't cram fifty cents worth of drugs down the throat of a sick chicken that wouldn't be worth over a quarter if it was well.

If you cannot give your cows the best shelter, give them the best you can. Show your good will. They will appreciate it.

While there is economy in co-operative dairying, there is not as much as many have been led by the boomers to suppose.

If you cannot buy a good male to breed up your stock, hire the services of one. It will pay in the first calf that is dropped.

There is no disputing the fact that corn gives the most profitable returns when converted into condensed animal products.

Why should not a working animal have a working sire and dam? What use is there in keeping breeding animals in idleness the year around?

When horses bolt their food, chaff and hay or clover cut fine, a handful or so mixed with the oats, will cause them to give their food better mastication.

A variety of food is always relished by animals as well as by man, and is beneficial as affording all the necessary nutritive elements to nourish the system.

Butter will never grain finely in "coming" if the fat globules have previously been injured by overheating of cream or too much violence displayed in churning.

In feeding calves skim milk don't forget to make up for the butter taken out in the shape of cream; some supplementary feed should be given with the skim milk. Linseed oil-cake, cotton seed meal, bran, oats and peas are all good.

To keep the trunks of apple trees smooth and clean use a wash made by slacking one-half bushel of lime with hot water, and adding one gallon of soap and two pounds of crude carbolic acid. If applied as often as the acid loses its odor it will also keep off rabbits and other vermin.

When the stock are confined, as must be the case a good part of the winter, it is quite an item in keeping them comfortable to have them clean. All kinds of stock will lie down more or less, and if care is not taken to keep their quarters clean they will soon get in a very filthy condition that will not only be uncomfortable, but also unhealthy.

His Heart in the Wrong Place.

Charles Breslin, of Springfield, Ohio, has a curious displacement of his vital organs. His heart is on the right side of his chest. Breslin is a healthy young man of twenty-six, and is a draughtsman and engineer of marked abilities. He experiences no ill effects from the unique displacement, and is actively engaged daily in his profession. The beating of the heart can be plainly felt on the right side. His circulation is regular and his pulse normal. Mr. Breslin says when he was a little boy he was thrown from a heavy farm wagon, and two wheels passed obliquely across his chest. He was ill for some time from the injury, and believes that the heart was shoved over to its present position by the wheels, and that his circulation and vital organs finally accommodated themselves to the change.

THEY GOT THEIR MAIL.

Although They Had to Suppress a Part of The Government.

The "town" itself consisted of a general store, two dwellings, a blacksmith shop, and a railroad depot, and the Post Office was in the back end of the store. Three or four of us had ordered our mail directed there, supposing it to be a place of some importance. Therefore, after the train had departed, we went over to the store to make inquiry. The Postmaster sat on his counter smoking a clay pipe, and nothing indicated that he was in a hurry.

"After mail, eh?" as he looked us over.

"Yes."

"Did any of you ever think what a responsible position a Postmaster occupies?"

None of us replied, and he crossed his legs, looked into vacancy, and continued:

"He is a part of the Government. He represents the Government. He is, to a certain extent, the Government. As the Government, he should command respect. Gentlemen, remove your hats."

"Who to?" demanded the wire-fence man.

"To me, sir—to the Government."

"Not by a blanked sight! If you are the Postmaster of this jack-rabbit Post Office, then you hump yourself and hand out our mail!"

"Gentlemen, is them your sentiments, also?" queried the old man as he turned to us.

"They are."

"Then you don't get a letter out of this Post Office! You have assumed the attitude of treasonists toward this Government, and you get no favors from it."

See here, you old lop-shouldered, gander-shanked idiot, do you mean to say you won't pass out our mail?" exclaimed the fence man as his hair began to stand up like the barbs in his product.

"That's jist what I mean to say. This Government don't bluff."

"Well, if you won't, then I will?" He started for the back room, but the Postmaster hopped off the counter and obstructed him and said:

"This is high treason, for sure. This Government warns you not to enter that room."

"Will you get our mail?"

"No, sir."

"Then stand aside."

The fence man pushed ahead, and the Postmaster took hold of him. Then there came a biff-bang! and the Government was knocked over among a pile of rope and axe handles. The Chicago man got him by the leg, drew him out doors, stood him on his feet, and the old man started up the road on a run. We went back to the Post Office and wire we went back to the Post Office and wire we went back to the Post Office and wire we