THE SUPPLY OF NITROGEN TO THE FARM

Nitrogen is one of the three valuable elements, and usually it is the most deficient element in the soils that are said to be getting very "thin," especially in the worn hill lands and ridges, and also in very sandy hill soils.

Nitrogen is often sold under the name of ammonia, but one must buy 17 pounds of ammonia to get 14 pounds of nitrogen. Commercial nitrogen can be bought in the form of sodium nitrate, ammonia sulphate, or dried blood. The commercial value of nitrogen is at least 15 cents a pound; but the agricultural value in general farming is never 15 cents a pound.

In other words, while commercial nitrogen can often be used with profit in market gardening, all the records thus far secured show that the increase produced by commercial nitrogen in general farm crops on Illinois soils is never sufficient to pay the cost of the nitrogen applied.

But why should we think of buying nitrogen? Nitrogen is absolutely the most abundant element of plant food, measured by crop requirements. The air over each acre of land contains sufficient nitrogen for a 100-bushel crop of corn (grain and stalks) every year for more than 400,000 years, and sufficient carbon, in the form of carbon dioxid, for—how long? Four hundred thousand years? No. Forty thousand years? No. Four thousand years? No. Four hundred years? No. Forty years? No. Four years? No. The total supply of carbon in the air over one acre is sufficient for such crops for only two years.

Of course if only one-fourth of the earth's surface is land, if only one-fourth of the land is cropped, and if only one-fourth of 10 bushels of corn is the average crop, then the supply of carbon dioxid is sufficient for 128 years; and if carbon dioxid is constantly returning to the air in the breath of every animal and in every form of combustion, then the supply of carbon for plant growth is absolutely permanent.

In other words, there is a natural carbon cycle, by which the carbon circulates, so that the supply in the air is perfectly maintained under all ordinary conditions. There is also a natural nitrogen cycle, by which the nitrogen circulates, so that under most conditions the supply of nitrogen in the soil is maintained in large part by the native legume plants; but the average farmer destroys the nitrogen cycle, by his failure to grow and return to the soil a sufficient amount of leguminous crops.

But why should we think of buying nitrogen? Buy water, if you can in time of drouth; but don't buy nitrogen for general farm crops.

How, then, shall we add nitrogen to the soil? By ploughing under clover or farm manure; keeping in mind that for a 50-bushel crop of corn we must plough under two tons of clover hay or eight tons of manure; and keeping in mind that whoever fails to do as much as that will finally have soil that will not produce 50 bushels of corn per acre; keeping in mind that the nitrogen of the soil is contained only in the humus or organic matter, which gives to the soil its black color; and that, if you are still producing fair crops of corn, oats, wheat, or timothy, without ploughing under crops of clover or manure, you are still wearing out the humus of your soil; and that it will continue to get thinner and thinner so long as you continue thus to farm it.

Clover and all legume crops can get nitrogen from the air, while other crops cannot.

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In the opinion of many profitable dairymen a mistake is made in using young sires in preference to old and well tested bulls. Commenting on this point, W. F. Stevens, of Quebec, says:—"We cannot place too much value on the sire. A young sire does not give us as strong and vigorous stock as an older sire. Those of you who have been in the breeding business for years will agree with me that you can get better stock of greater vitality and more vigorous constitution from aged sires than you can from younger sires. Aged sires very often have little or no value placed upon them except for beef, especially among dairy breeds. I know three dairy sires that have been kept in the community in which I reside until they were nine, ten and eleven years of age and they were of great value to the dairy farmers of that community because they laid the foundation to the dairy stock, which I believe is hardly excelled in any community. I do not wish to say this boastingly, but it emphasizes the fact that we are too hasty to get rid of our old sires."

As is frequently pointed out, one advantage in breeding young sires and disposing of them afterwards is that often one of these young bills produce get of unusual promise. In such cases, if the sire has been marketed its breeding strength is lost. It is generally believed that if there were more common practice of using aged sires, there would be an additional advantage in strong progeny, to say nothing about preserving the usefulness of an unusually strong bull that regularly superior producing stock.

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The tendency of our age is toward better farming. No one has reached the high plane where no improvement is possible. Never as now have the farmers desired good reliable agricultural reading, good, practical agricultural schools, and good farmers' institutes.

The seed train specials, the short courses and agricultural expositions all show there is a hungering for knowledge. We know this is not mere curiosity because of results. The corn of commerce grades better than ever before because men have been going to school and studying corn. And the same is true in other lines.

Many yet have never come under the magic influence of enthusiasm. Some are content to live a miserable existence when by a little study they too could be raising more and better crops, and getting their farms in better condition.

Every good farmer is a missionary. He and his possessions have an influence at large upon the community. Beware lest that influence leave someone stranded. That is, should ninety and nine neighbors spruce up and try to follow his good example and one remain stubbornly set in his ways and shiftlessness, that one will be more conspicuous as a failure than ever before. That one cannot be you because such men do not read farm papers. They know it all.

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Spring fever is all gone now and spring work is in full blast. In the rush of busy days don't forget the details, "the hitching up of the traces," in completing a job of work once begun. One of the losses obtained on many farms at this time of the year comes through the attempt to do too much. Too many acres may be cultivated; too much stock kept for the acreage; too much work undertaken for the help available. These are "shoals" to be avoided.

Many farmers are land poor and attempt to cultivate too much land, more than they can handle. They try to "spread themselves out too thin." A crop is hurriedly put in, a poorly prepared seed bed is furnished, seed is not first class, little if any attention is given to varieties, and all because too much is attempted, and the half-way method of doing things is continued through the cultivation and harvesting of the crops.

Such a farmer is always rushed in his work and always behind. Aim to keep ahead. Do not attempt too much. Whatever work you start, finish it. "Hitch up the traces."

POULTRY

GOOD HOUSE FOR GENERAL POULTRY PURPOSES

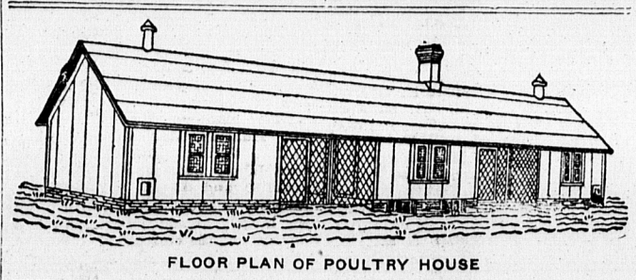
Construction of the Building is Simple But Durable.

IT IS WELL LIGHTED.

(BY F. L. MARSH.)

This building is 14 ft. wide, and can be as long as desired, adding another set or sets of rooms and sheds at one or both sides. The construction is simple, but durable. Outside walls are covered on outside and inside with light weight papered roofing, placed on cheap lumber. Plaster board may be substituted for the inside. Studs are 2 x 2, and there are two sets; waterproof paper being placed between them. Thus a double air space is secured. Rafters are of 2 x 4, and may be stripped beneath and practically the same construction used as for the sides; using thicker roofing. So constructed, the building will be very warm.

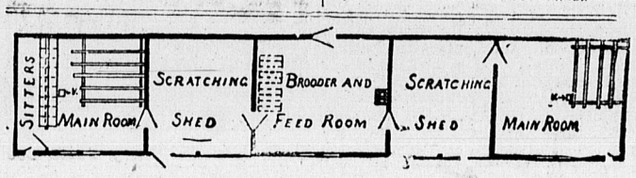
Foundation is of stone, brick, or grout. Floors are of cement, covered with dry sand. Broken stone, well



FLOOR PLAN OF POULTRY HOUSE

tamped as for macadam road is cheaper than cement, and makes a fair substitute. The ventilators, being placed in the warmest parts of rooms, will draw. Windows have sash with some glass, but mostly filled with heavy muslin. This lets in a fair amount of light, and air enough to prevent dampness. By using two courses of cloth it will be fully as warm as one of glass, and insure a dry building.

One room has a double row of nests, with wire partition above. When a hen wants to set, her nest is pushed through into the small room, and replaced by the one opposite; the door being closed. A small door leads to an exercise yard. Partition door is open, except when raising chickens. Scratching sheds have earth floors, and are enclosed by wire fencing, with doors. In winter muslin can be added,



E TERIOR VIEW OF POULTRY HOUSE

making sheds warm, and not excluding sun.

The brooder room has a wood floor. Beneath is a basement for incubator. By a stove in room above and the double flue chimney both can be kept at any desired temperature, and the air pure. A trap door covers stairway. Basement has windows on both sides. Entrance is from north, while south side is taken up by yards.

GARDEN NOTES.

After ploughing the garden harrow the ground at once. A lumpy garden at seeding time is an abomination.

Cultivate the ground after rains as soon as it can be worked.

Don't forget a few transplanted onions in the garden this spring.

It is all right to try novelties in the garden, but do so on a small scale and "hold fast to that which is good."

When planting the garden don't be too saving of your seeds. It is easier to thin plants than to replant.

If there is an exceptionally rich spot in the garden devote it to cabbage.

Provide fertilizer for the garden. A clean poultry house and a good garden go hand in hand.

Don't lay it onto the moon if you don't get a good garden crop this year. Do your part and forget about the moon.

FRUIT FLAVORS AND EXTRACTS.

The characteristic flavor of fruits as peaches, pineapples and plums is due to small amounts of chemical compounds formed during growth and which possess defined physical properties as taste. Many of these compounds which are produced in plants may also be formed by putting together the elements in the laboratory by what is called the synthetic process. The compounds thus made in the laboratory are in every way identical with the same compounds produced in fruits, but in their preparation in the laboratory chemicals are used which are often not as completely eliminated as is the case when the material is produced by the plant. Hence it is that preference is given to the natural flavors extracts, because they do not contain the residual products. Some of the flavoring extracts, however, are now produced with such a high degree of purity that the chemist is unable to determine whether they were made in the laboratory, or in the plant, as they are identical in every respect. This synthetic production of flavors and extracts has led to many speculations as to the productions in the laboratory of other compounds and even to synthetical production of food. Dr. Remsen, president of Johns Hopkins university and one of the foremost chemists of the country, has suggested the synthetic production of some foods as one of the possibilities of chemical achievement in the future. However, it will probably be a long time before man can compete successfully with nature in the economical production of the compounds found in foods.

SHEEP

THE VALUE OF TOBACCO TO THE SHEEP RAISER

When Properly Used is Excellent Tonic and Parasite Preventive.

PROPER METHODS OF USING.

(BY HARRY H. WHEELER.)

Tobacco long has been known as a reliable remedy for external parasites upon sheep, yet only of recent date has the idea dawned upon the shepherd's mind that this weed might prove useful in combating the stomach worm and other internal parasites. I have at an earlier writing promised to give the shepherd readers of Successful Farming, information upon this subject and will endeavor to throw some light upon the uses and abuses of tobacco with our flocks.

When properly fed tobacco is an excellent tonic and parasite preventive and as the writer is giving this product a thorough trial in his own flock he feels able to state facts. The most convenient form of feeding is powdered tobacco or tobacco dust, and the method of feeding is as follows: Take common salt, six parts, tobacco, two parts, and worm powders, one part (all by measure) and mix thoroughly. Keep this compound before your flock at all times and I feel certain the parasite evil will be only a faded vision of the past. Let this medicated salt be your flock's salt supply and never allow them other salt, not so treated. Many sheepmen are overdoing a good thing, turning good to evil, by overfeeding with tobacco. They take a large quantity of leaves, sprinkle salt upon them, and allow the sheep to consume all they wish. Certain members of the flock, by this method, will develop into confirmed tobacco fiends and will consume far too much for their own good.

Nicotine is a poison when taken into the system in too great quantities, and causes nervous disorders in the sheep. It will also cause rams to become impotent and also deaden the breeding capacity of the ewe when fed to excess. By all means allow your sheep some tobacco in their salt supply according to the compound given, but do not be led into overfeeding the weed.

According to all prospects this plant is destined to prove a great boon to the shepherd in ridding his flocks of the dread parasites and elevate the quality of our sheep to a higher standard.

HORSE NOTES.

A clipped horse will catch cold less easily than one not clipped.

Do not over feed of hay, especially at night. It is not good for a horse to eat all the time.

Water before feeding. Then the water again before going to work.

For itch or mange, rubbing of tail or mane, wash thoroughly with warm soft water and soap, then rub in with brush a proper strength of coal tar dip used on sheep and hogs. Scrub every three or four days until cured.

Disinfect stalls and harness also or you never will get rid of the pest.

Give only half rations on Sundays when team is idle. A little grass then is a good tonic.

Both the brood mare and the stallion can be carefully worked to their betterment. They should not be over-worked, of course—just give regular exercise.

If manure smells very strong when voided something is wrong with the feeding.

When a long drive is expected do not feed quite as much as usual. They travel better.

The corn-fed horse lacks spirit, tires easily and sweats profusely.

When shedding teeth the horse may not eat as well as usual. Do not dope, cut gums or torture by burning. Give nature a chance to work off these twenty-four milk teeth. This is not finished until six years old.

The high-headed horse can better be bridled by having a snap on the bit. Put bridle on then snap the bit in place.

A TONIC FOR SHEEP.

A mixture of copperas, sulphur and salt makes a good tonic for sheep; one which many no doubt will need at this season of the year. It tends to purify the blood and to help the animal in its fight against worms and other troublesome parasites. About six parts of salt to one each of copperas or sulphur makes the right proportion. If this is kept constantly before the sheep, inside the barn, where moisture can not reach it, they will eat freely of it, and will undoubtedly be greatly benefited by it. It seems to tone up their condition generally. A controversy was heard the other day as to the value of sulphur; one speaker asserting that sheep that were fed this substance were not troubled with ticks. There is certainly some room for doubt on this point. It is scarcely to be thought that enough sulphur would exude through the animal's pores to make it uncomfortable for the ticks. However, it is well known that sulphur, copperas, and salt, combined, make a good tonic for sheep; one that builds up and purifies their blood and makes them more resistant to parasitic invasion.

DAIRYING

STEPPING UP THE LADDER IN THE DAIRY WORLD

Success Follows Efforts of the Man Who Keeps Trying.

MAKE A SMALL BEGINNING.

(BY E. L. VINCENT.)

Some farmers think that the only way to get a good herd of dairy cows is to start out with a good big fat pocketbook and pay out, and pay out, till the bottom has been reached, and then start over again. These men look with envy on their neighbors who have worked into a good daily, and perhaps say, "Well, if I had as much money as they have, I might do the same thing!" Then they go back to settle down to the old rut and wait for their ship to come in, or for some wonderful upheaval which shall land them on the right side of the financial question, when they hope they may gain the desired object and become possessed of a thoroughbred herd of cattle.

But this is not the right way to look at the matter. I had a little chat with a man who has been through this experience not long ago, and it is worth repeating for the encouragement it will put [illegible] heart of every ambitious [illegible] the way he told the [illegible]

I never could have [illegible] because I had not [illegible] in them. My cows [illegible] mon lot, neither very poor. I was just about [illegible] farmer, that is what there [illegible] But I did not feel satisfied. I saw that men were doing better than I was. Their milk tested more and they got more of it. Things began to look a great deal better about their farms than they had. I will say right here that I do not believe there is any kind of farm work that will bring land up faster and keep it up than dairying. You keep everything on the place and that tells the story.

"I studied the matter over and watched things till I made up my mind that I had been on the wrong track. Feeling down in the mouth and envying the fellows who are doing better than you are is not the way to get up in the world. Terribly unsatisfactory business, and no mistake.

"Well, I just began with what I had. I did not know where I would come out; I thought quite likely it would be at the little end of the horn, which shows how much faith I really had in my own ability to build up a better dairy herd. But I went away and bought a full-blooded bull to head my herd. That was all right, as I look at it now. But right then and there I learned that pedigree is not everything. That bull did not do me much good. He was not what I supposed he would be; so I wasted some good time and money with him. I never had any really good stock from him.

"Then I got another bull and he proved all right. I had some choice grades from him, which I still own. I wish now I had kept him longer. He was kind and I was not afraid of him; but the stories I [illegible] about old bulls disturbed me and [illegible] was fearful that some day I might [illegible] I had gotten rid of him before I did. Then, too, my barns were not rigged to stable an old bull. I wish now I had fixed up to do that.

"But I began buying good heifer calves here and there as I ran across them. I had an understanding with men who kept good cows to let me know when they had a nice heifer calf to sell. When I got the word I would go and look at them and if they suited me I would bring them home. One of the best thoroughbred cows I have was gotten in that way. By keeping one's eyes open, one may find now and then a bargain [illegible] way in the herd of some farmer who is going to veal his calves if he cannot sell them at a little above the market for blooded stock.

"Last spring I got a bit reckless, I suppose, and went away and paid a little over a hundred dollars for a bull ten months old and two heifer calves, all registered. These make a nice addition to my herd and I have great hope that they will turn out well. If they do, I shall feel encouraged to invest a little more the same way."

DAIRY ITEMS.

Hasty careless milking is often to blame for udder troubles with fresh cows at this season.

The cow that gives thin milk and a small amount when she has good care, generous feeding and comfortable quarters is a grafter—a boarder. Why keep her longer?

Another thing that may be set down as practically certain is that prevention of the kicking or jumping cow is better than cure.

Along about now many farmers are asking whether they can afford to buy grain until pasture comes. Sure it will pay well to feed the cows well these days if we do have to buy the feed.

Let due credit be given the cow for at least 2c a gallon for the skim-milk and buttermilk, when counting up the dairy proceeds. It is worth more than this as a pig and chicken feed. To keep the pigs and chickens growing every minute skim-milk should certainly be a part of their rations.

It should ever be remembered that allowing the heifer to dry up before her time will seriously impair her usefulness in after life. Securing every drop of milk the young cow will yield and milking as many months as possible during the first lactation period is very important if we desire her in after life to reach her maximum milk production.

A few warm early spring days brings the grass forward rapidly. We find it pays to let the grass get a good start before turning the cows on the pasture. One year when feed was scarce we pastured the grass at an early stage when it was tender and the ground soaked with water. The result was a set-back to the pasture from which it did not recover that season.

Keep your breeding birds from the corn bin. It's the fat hen that produces the infertile eggs.

Whitewash should be used freely as soon as the first few warm days appear.

AGRICULTURE

WATER DEPOSITS AND THEIR VALUE TO FERTILITY

Washing of Surface Soil Means Loss of Richness.

POND MUD AS FERTILIZER.

(BY WM. BLISS.)

Doubtless we have paid too little attention to the plant food contents of the sediment deposited by rivers, streams and tides. Whatever contains large quantities of decayed vegetable matter has a large value for the fertilizing of plants.

In many cases the alluvial deposits have considerable value as a fertilizer, if they are used before the water has had time to act upon them and thus destroy the readily available plant food. It must be remembered that water is a potent factor in changing the chemical constituents of things. The sediment of a river may be rich in plant food, but if that richness is permitted to remain under water for some time, certain changeable elements of plant food will undergo changes that will render it unsuited to plants.

Where the deposits of rivers are soon exposed to the sunlight and air and the surplus water is allowed to drain out the plant food remains for a while in all its strength. This is the case with the River Nile in Egypt. The rich deposits do not remain under water, but the rapid fall of the level of the water in the river soon leaves the sediment exposed to the sun and the air. It is Egypt's fertility.

Naturally people think that the waters of the Nile must carry a richer sediment than any other river, but there is no reason to suppose that this is the case. It is a fact that the Nile overflows its banks and deposits its sediment over a vast area and then leaves it to serve as fertility and withdraws into its old bed, that makes the Nile a most remarkable river in this respect.

It is probable that the sediment of all rivers is exceedingly rich in plant food, but that this sediment is not left where it will do the most good, as it is in the case of the Nile. The richness of the sediment comes from its origin, for it is drawn from the dust-like particles in the finest soils.

The lighter and more fibrous the soil the more will the soil particles mingle with the running water. The floatable portions include infinite quantities of parts of insects and the excrement of living creatures of all kinds. The innumerable multitudes of creatures that live contribute to swell the total of the richness that the water carries.

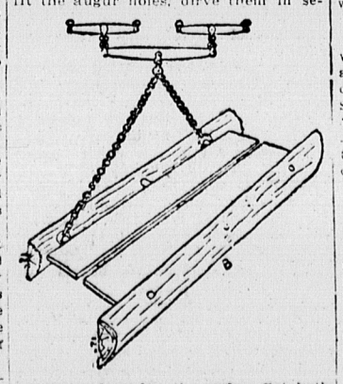
Often when the streams run low, these deposits are easily approached, and at that time they should prove to be valuable for fertility, much better than they will be a year or two later after being soaked in water for months at a time.

In some parts of Europe pond mud is now being used as a fertilizer. This is often rich enough to be well worth hauling to the fields. But pond mud is not so rich as is the sediment of some rivers, for it is generally produced from a very small area of land, while the rivers draw the washings from exceedingly wide areas.

When the farmer permits his surface soil to wash, he is losing the richest portions. On the other hand, the farmer that can rescue some of the newly deposited sediment from the bends of rivers and streams, is bringing back into use some of the richness of the surface soils that was getting away.

DIRECTIONS FOR MAKING DRAG.

To make the spilt-log drag select a log of box-elder, elm, or the butt end of a telephone pole, being sure to have it light, 12 inches thick and 7 feet long for an ordinary team of horses, or 9 feet long for a heavy team. Select a log with straight grain if convenient, or one with a right-hand twist to the grain. Split equal halves, and bore 3 two-inch holes through each half so that the rear half, when set on edge, will stand 16 inches left of the front half. Get pieces of timber of proper dimensions, hew them down so they will fit the augur holes, dirve them in securely, and wedge the ends. Set both halves of log on edge with the flat sides in front, after they are fastened together, 30 inches apart, with the cross-pieces. With a piece of old waggon-tire or a 3-inch piece of sheet steel 4 feet long, the front and right hand face of the front log should be shod. This is the cutting surface of the drag, and will be long enough for any ordinary team to pull.



Then get a log chain of sufficient length and insert one end of it through an augur hole near the right-hand end of the front log and fasten with a pin through the link. The other end should go around the connecting timber at the left-hand end of the front log and over its top, as shown in cut. With a few boards cleated together a platform is made on which the operator stands. The drag is now complete and does not have a nail or bolt in it except to hold the shoe on. A very satisfactory addition to the drag is made by taking a large iron ring made of ⅜-inch iron and heat and draw one side of it into an extension which will fit over the links of the chain so as to hold position without slipping. The two halves of the log which make the drag should be thirty inches apart when the drag is complete, and if this looks too wide it will be better to set it two inches wider. Many drags are rendered failures because the logs are set so close together that they do not clear themselves of mud.

ANSWERS TO CORRESPONDENTS

NOTE.—Not more than one question from one correspondent can be considered at one time. Questions should be specific, clear and concise, and should be addressed to the Editor of the Agricultural Department of this paper. Any person requiring answer by mail must enclose stamped envelope.—Editor.

Pink Eye.—F. V. Will you prescribe a remedy for pink eye of cattle? Ans.—Blow pulverized boracic acid into eyes once daily.

Boar Ailing.— M. S. A boar has a large lump on the small of his back. At times he loses control of his hind quarters entirely. Can he be cured? Ans.—Better kill him, as there is no cure.

Wire Cut.— Subscriber. I have a colt that was cut with barbed wire on the leg. There is some discharge. What do you advise? Ans. — Inject comp. tinct. benzoin once daily.

Red Urine. —Subscriber. I have a 9-month old steer that passes very red urine, seems well otherwise. What is a remedy? Ans.—Give potassium bitart in tablespoon doses twice daily.

Teat Leaks— P. N. I have a good milk cow that was cut on the teat with barbed wire three years ago. The teat leaks. Can it be cured? Ans.— The edges of cut can be freshened and the wound stitched.

Thrush.— Subscriber. — What is the cause and cure of thrush on horses' feet? Ans.— Thrush of the foot is a form of eczema. Pack the frog with cotton wet in a 1-500 solution of formaline.

Bog Spavin— J. K. Mare has a soft bunch on her leg; it looks like a bog spavin. She is not lame. What can I put on it? Ans.— Apply tinct. iodine once daily for a few weeks to the bog spavin.

Lame Colt.— B. S. H. Colt has been lame in the right hind leg all winter and now has a large soft bunch on the front of the flank on the same side. What causes this? Ans.— Trouble is probably in stifle joint; try blistering.

Eyes Affected— Subscriber. On clipping the wool which grew quite heavy about the eyes of a ewe I found the eyes much inflamed and she is unable to see. What can I do for her? Ans.— Wash the eyes well with a saturate solution of boracic acid.

Lameness —M. M. Mare that I bought became lame. The trouble seems to be in the shoulder joint. What is a remedy? Ans.— If you can locate the point of lameness apply equal parts spirits camphor and tinct. arnica once daily, rubbing well.

Brain Trouble —Subscriber. An old ewe suddenly became totally blind, runs away and gets lost, has no appetite and I think she will die. If others become sick in the same way what can I do for them? Ans.— Probably brain trouble which may not affect any others.

Stringhalt.— O. L. R. Can a stringhalt horse be cured so as to walk naturally. Can it be done with medicine or would you advise an operation. The horse in question has it very bad. Ans.— A great many of these cases are cured by operation, which can only be done by a skilled veterinary surgeon.

Cow Gives no Milk.— L. J. I milked a 9-year old cow till within three weeks of calving and when she freshened she gave little or no milk and the calf was very small. What caused the trouble? Ans.— The late milking was probably a factor. the calf not getting enough nourishment Dry her off two months next time.

Lame Horse —Subscriber. My horse became suddenly lame when driven, could not put his foot down and has remained lame. There is a swelling which I have opened, but there is no matter in it, though a small quantity seeps out around the swelling. What can be done? Ans.— Bathe the leg twice daily in hot salt water.

Bog Spavin.— A. R. T. A mare three years old has hard swellings at the knee on both hind legs; have used medicine that reduces the swelling, but it returns when I turn her out to pasture. What will cure her? Ans.— Get 12 oz. tinct. iodine, add 1 oz. pulv. camphor and apply to the diseased joints with an old tooth brush once daily for a few weeks.

Indigestion —J. C. G. A young mare was ailing for eight or ten hours. She ate little, but lay down and slept most of the time; did not act as if in pain. She had not been worked for weeks. What could have been done for her? Ans.—Probably had indigestion. Two tablespoonfuls of Jamaica ginger in 1 pint of water would have been a good remedy.

HORTICULTURAL NOTES.

"There is hope in planting the seed, pleasure in seeing it grow, joy and profit in the harvest."

Small fruits and poultry make a good combination.

For the first few years of an orchard pruning is an important item.

Crops planted in the orchard should not be those that require deep cultivation late in the season.

Thrifty small trees are more apt to live than larger ones. Their roots are smaller and more apt to be all taken up when transplanted.

Are the spraying tools all in shape, the pumps cleaned, extension rods in readiness and spray nozzles in working order? Go a little farther and get stock on hand for the different spraying formulas and avoid the rush later.

SEE THE BIG TRIP NEWS ON PAGE NINE OF THIS ISSUE