

will throw some light on this matter and at an earlier date in the poultry life of many than it did with me. I had handled poultry all my life and believed always, as I do now, that poultry of all descriptions could be poisoned, but not having any learning along the science of medicine I had no reason for doubting those who had such learning, and it was only at a slight cost that I obtained the correct information.

The Grain Ration.

It is a little too late in the year to compel the cows to live on pasture alone, and it is too warm to feed much corn grain or corn meal. The ration, whether principally grain or some of the by-products, should contain protein enough to maintain the usual flow of milk, but should not contain an excessive amount, as that would assist the succulent grass remaining in the pasture in making the bowels of the animals too loose. Bran usually makes an excellent feed if given dry, but on pastures where there is a great deal of clover it will have a tendency of making the bowels too free. In some instances it is the means of causing scours, which will greatly retard the flow of milk. Where there is white clover in the pasture, the soft feed should be equal parts bran and corn grain. It is best to crack the corn or feed it in the form of meal. The animal's teeth, because of eating so many weeds, are sometimes on edge, and it can not properly masticate the corn if

spring I give a thorough cultivation with a spring-tooth cultivator, then one harrowing, then for oats, sow with the seed drill at the rate of about seven pecks to the acre. I put the seed down not less than two inches deep. Then I give another thorough harrowing, for it is essential to have a fine smooth seed bed.

Clean Water for Horses.

In foods the horse is very particular. It sniffs and rejects deceptions very quickly, and if fastidious in foods, it is equally so in drinks. It would almost rather die of thirst than drink unclean water. It only does so as a last resource, and those who insist on being careless and putting impure water before it subject it to a great hardship. The horse is a hearty drinker; water is enjoyed as much as food, and is just as necessary to its well being, and it is quite as satisfactory to study its water supply as carefully as foods. If given a variety of foods, some valuable and others cheap, the former tainted and the latter sweet, the sound will be accepted rather than the tainted. It has often a choice of this sort, but in water it has none. This may be in the brook, pond, tank, or bucket; if it drinks and is satisfied, well and good. If it refuses or indulges sparingly, it has no further opportunity and is bound to suffer. If a horse is given impure water, and drinks a little, and then has some which is



Feeding the Geese.

it is fed whole. Where the pasture is principally blue grass, bran alone makes almost the ideal feed to balance the green feed. In either case, the soft feed should be fed dry.

How to Grow Good Oats.

The most essential point in raising good oats or any grain is to sow good seed. I have been in the habit of sowing only the large grain for some years. I clean my seed twice and screen out all small grain. Another important factor is to keep the land clean and free from noxious weeds. It is necessary, if one would have the best results to sow a variety of oats that have proved to be a good yielder and that has good stiff straw of medium length. For seed purposes one should let them get ripe before cutting; ripe oats will germinate better.

Pure seed alone will not solve the problem of better crops unless due attention be given to the cultivation of the soil and the maintenance of soil fertility. It requires the judicious use of selected seed along with thorough cultivation of the soil. By suitable rotation of crops and the use of farm yard manure the farmer can materially improve the yield and quality of his crops.

I try to follow as near as possible to a four year rotation. The first year after sod I grow corn or peas; second year wheat or oats; third year, oats seeded to clover and a little timothy. I always do all my plowing in the fall. As soon as the land is dry enough in the

pure and fresh placed before it, its enjoyment cannot only be seen but almost felt by all who observe it. Surely this is the strongest indication of what is wanted, and that the greatest efforts should be made to supply it.

Value of Farm Manure.

It is one thing to say that farm manure has a value, but quite another thing to say what that value is or to what it is due. The positive or intrinsic value of farm manure lies in the amounts of valuable plant food which it contains. It also possesses an important indirect value as a soil stimulant, due to its power as it ferments and decays, in contact with the soil, to liberate from the soil plant food that would not otherwise become available so quickly. There is still another distinct value in farm manure, due to the fact that it makes the soil more porous and spongy and thus increases the power of the soil to absorb and retain moisture and to resist surface washing. In other words, this third value of farm manure is due to improvement in physical condition.

The value of farm manure for its physical improvement of the soil is commonly fully appreciated, and frequently overestimated by popular agricultural writers, while its value for the plant which it supplies and for that which it liberates from the soil is sometimes almost ignored.

There is no good excuse for erroneous teaching regarding these different val-

ELLIMAN'S EMBROCATION

FOR USE ON ANIMALS.		FOR HUMAN USE.	
Sprains.	Sore Shoulder.	Rheumatism.	Sprains.
Rheumatism.	Sore Udders of	Lumbago.	Backache.
Corns.	Cows not in Milk.	Sore Throat.	Bruises.
Spilts when	For Sore Mouths	from Cold.	Slight Cuts.
forming.	In Sheep and	Cord at the	Cramp.
Sprung Sinews.	Lambs.	Chest,	Soreness
Capped Hocks.	For Foot Rot in	Neuralgia	of the limbs
Overreaches.	Sheep.	from Cold.	after
Bruises.	Sprains in Dogs.	Chronic	exercise.
Broken Knees.	Cramp in Birds.	Bronchitis.	
Elliman's Royal Embrocation.		Elliman's Universal Embrocation.	

ELLIMAN, SONS & CO., SLOUGH, ENGLAND.

Each grate bar has three sides—long wear

When only *one* side of a grate bar is continually next to the fire all the wear is concentrated on that one side. The life of the grate bar is thus naturally just *one-third* as long as when the wear is distributed on *three* sides.

That explains why Sunshine grates have *three lives*. Each of the four grate bars has *three* sides. Each time the ashes are "rocked down" (no shaking with Sunshine) the side next to the fire can be changed. Thus the life of the grates is greatly prolonged.

When desired, the heavy bull dog teeth on the grates will seize hold of clinkers, grind them up, and drop the particles into the ash-pan.

Buy the Sunshine—the durable, convenient, economical furnace, guaranteed by largest furnace makers in British Empire.

McClary's Sunshine Furnace

London, Toronto, Montreal, Winnipeg, Vancouver, St. John, N.B., Hamilton, Calgary.