STEADY NOT SENSATIONAL GROWTH WHAT IS WANTED

A great many farmers are so anxious to see their lambs do well from the beginning that they start right in feeding them large quantities of food The lamb may seem to come along well for a time, but later on it invariably fails to do well or to make corresponding response to the feed it consumes. Feeders often say "it is burned out." Crowding a young lamb is indeed a mistake, and results in unprofitableness later on. By all means keep the lamb thrifty and growing from the day of its birth, but its growth should be gradual and steady rather than sensational and in spurts.

There are several reasons why a lamb crowded in its early life does not prove a satisfactory feeder later. The tissues of its stomach are tender and delicate and are easily distended. It is desirable that they should be enlarged, as the bulky nature of the normal food, milk, indicates; but when in addition they are fed large quantities of other food the digestive system becomes so enlarged that nothing but its customary load will satisfy the sheep. It must have food in large quantities or it feels the pangs of hunger.

This would not be so serious were it not that in handling such quantities of food the sheep gets into the habit of digesting but not absorbing them, and thus large quantities of the nutrients that it has labored to digest never do it any good, as they pass off with the faeces. Far better to give the lamb smaller quantities of food and have it early acquire the habit of thoroughly assimilating the nutrients contained. This not alone saves the sheep's energy but is a saving of food.

The aim during the early life of the lamb should be to produce bone and lean tissue, to get surface, in other words, on which to later put the finish. This aim is best achieved by feeding a very little grain while the lamb is nursing, gradually increasing the amount as it proves itself able to handle it, and later on to turn it out to pasture. Here it will get all the nutrients it needs without any danger of getting more than it can handle. As in every other instance, however, the lamb must be gradually accustomed to pasture, and not be turned out at first to eat all it can hold. Throughout its whole existence any change in feeding must be gradual and its growth steady. A lamb that is docked and castrated while still young so that it does not suffer any setbacks, and that is grown as indicated, should develop into a fine robust type for later finishing.

* * * *

George T. Angell died recently at his home in Boston at the ripe old age of 86 years. Mr. Angell was founder of the Society for the Prevention of Cruelty to Animals, was editor of "Our Dumb Animals," a powerful champion of the rights of animals and man's duty to them; the author of laws for the protection of animals from barbarous man, first enacted in his own state, and subsequently—in form but little changed—in other states; was the publisher and distributer of many books, among them "Black Beauty," of which more than a million copies have been sold, and for more than forty years was the ablest and most effective promoter of kindness to animals and birds the world has known. His "Bands of Mercy," embracing millions of children in all parts of our country, have been instrumental in alleviating former sufferings of beasts and birds in gratifying and marvellous degree.

Some forty years ago Mr. Angell was an exceptionally able lawyer, with a good and rapidly growing practice and an extremely promising future financially. But moved by the daily instances of cruelty to animals which he witnessed and read of, he abandoned all thoughts of self and pelf and devoted his life and all that he had to an entirely new line of Christian evangelization, inspired by that beatitude of the Master, "Blessed are the merciful, for they shall obtain mercy." His was a missionary work of the highest order; it was designed to bless and exalt all of God's living creatures. If human beings, old and young, could be made more considerate of and kinder to lumb animals it would surely move them to be more considerate of and kinder to each other, the first step towards making "the kingdom come on earth as it is in heaven."

Mr. Angell was a pioneer in a sort of philanthropy that was new to his age; and after the manner of all similar pioneers, ridicule, contempt, and contumely were heaped upon him without stint; but his courage, his ability, his devotion to a holy cause triumphed at last, and but few men have died more universally lamented.

* * * *

Spring is here and with it again comes the problem of keeping the earth roads of the country in passable condition. No matter how well roads are graded they will become cut up and rough after every rain and if not properly taken care of deep ruts will form which keep growing and the roads are often well nigh impassable. If, on the other hand, they are properly taken care of from the time they thaw in spring, there will be little difficulty from bad roads. We know of no better and cheaper way of keeping the roads in good repair than by the proper use of the "King" or the "split log" drag. These drags can be easily and cheaply made by almost anyone. The use of any form of this road drag is not general in most parts of the state, but wherever it has been tried the users are very enthusiastic in its support. Any farmer who is a little public spirited and wants to do something for his community should make one of these drags and give the roads along his farm an application of dragging after every rain. It will be found almost effective a "cure all," or rather, a preventive, for all the evils with which roads are affected as some patent medicines are for the diseases of man and beast. What is the use of spending time and money grading up and building roads if they are not to be kept in repair? The first essential in the solution of the problem of better roads is proper construction; the second, and just as important, is keeping them up after built. For this purpose on our common earth roads there is nothing better than the "King" drag.

* * * *

The hen is getting big appreciation this season, for the price of fresh eggs has gone away up. Many are worried at their hens not laying. An expert along this line says:—"It is natural to all fowls to lay, or endeavor to lay, their eggs in secret, although the hen is willing that all the world should know after it is done that she has laid an egg.

"Josh Billings has said that a hen is a natural-born fool, but that she has some redeeming traits, and one is that "she never cackles until she has laid her egg." Now, she not only never cackles, but she approaches her nest stealthily and leaves it so, if left to her own modus operandi; anything interfering with this disposition of the hen may damage her production of eggs. Let there be little disturbance.

Feed well and give plenty of water in the mornings; let the hens alone until after the usual egg-laying hour is over. Two meals are sufficient, and do not give more at these times than is wholly eaten up. No hen that is tormented by lice will lay well. See to this.

It is advised to use a mixture of lime and sulphur in the bottom of the nests. The nest in the meadow is the hen's paradise, one of the stolen sweets of summer. Do not feed whole corn; do not make the hens too fat. Wheat with a little oats make a good whole grain food. Hens are held to lay better housed up in cold weather than when allowed range. The use of coal ashes is recommended for hens.

SWINE

SUMMER AND FALL CROPS FOR THE PIGS

What Is Best to Grow and the Economy of Its Production.

FINISHING OFF PROCESS.

(BY D. A. GAUMINTZ.)

In this age of kene competition, economical production is necessary if success is to be attained. The man who is alive to this, and who makes it part of his business to figure out ways of cheap production will eventually come out ahead in the race. Whether in growing pork, raising grain or manufacturing steel, economy of production is the gauge of success.

Feeding of hogs is one of the branches of the industry to which considerations of economy should particularly be directed. There are cheap methods of feeding more satisfactory in result than more expensive ones. One of these concerns the growing of summer feeds, the other the fattening or fall feeds. The first is the growing of juicy crisp pasture crops, which the pigs may graze, the other, the producing of barley, corn or like crops, which they may harvest and grow fat upon in the fall. Of both of these, every farmer anxious to meet competition successfully should avail himself.

One of the great pitfalls in ordinary methods of feeding is giving the pig too much feed while it is young, thus causing it all its life to require larger quantities of feed than it can completely utilize, since it digests more nutrients than it absorbs. The waste is thus threefold, eating more than it needs, loss of energy in digesting it and the waste of unabsorbed nutrients. A pig, early accustomed to overfeeding, never throughout its existence feeds economically. The value of any feed that will prevent this practice must at once be recognized. This pasture crops will do. They are succulent and bulky, and do not contain more nutrients than any pig should have or can handle. They are simply the ideal feed for pigs. But they must be kept always tender, juicy and palatable or young pigs will not eat them, so if clover, which is one of the cheapest pasture crops, is used, it must be cut a couple of times during the season to keep it from getting too mature, and unpalatable. For this reason many bogmen prefer young green peas for little pigs. These plants are juicy and are well liked by the youngsters. They will always eat them freely, and do well upon them.

Whether the early green feed be clover or peas experience has shown the effectiveness of this sort of feed in the economical production of pork. Not alone are they cheap, and great savers of the concentrated feeds, but they also put the pig's body into such condition that it lays on fat economically later on. The man who is looking for cheap pork, must take action at once, and get his early pastures ready.

Three crops are generally and advantageously used in furthering the fattening process — peas, beardless barley and corn. Common experience and scientific experiments have shown that the cheapest and most satisfactory way of using these crops is to turn the pigs right into them and let them feed themselves. They are excellent harvesters. They do not waste any more if as much feed as would be wasted in the ordinary process of harvesting, and they save all the cost of harvesting, which in these days of high-priced labor is not to be lightly considered. While harvesting the fall crops the pigs are contented and happy, get all the exercise they need, and never are in more thrifty condition—so why not let them do it?

The field peas mentioned will come in very handy at a time when other pastures are getting short, and when the pigs should be making rapid growth prior to the fattening period. When ripe they make a most excellent feed for shoats. They are reasonably good yielders, 30 to 35 bushels to the acre not being uncommon, and when harvested by the hogs themselves are very economical to use.

Beardless barley is frequently grown in various parts of the Northwest as an early feed for hogs. The pigs are not turned in until the barley is ripe. In a very short time they acquire a great liking for it, and gather in a head at a time with pleasure. If the pigs are confined to a small area very little if any barley is wasted and results are exceedingly satisfactory. Barley is useful in bridging over the period prior to corn feeding.

One of the most eminent fatteners known, and the one most commonly used in the Northwest, probably is corn. When this is hogged off in the field as it should be, no feed is more economical or more effective. Every farmer should plan to use just as much of it as he can. One acre will suffice for six or seven pigs.

Pigs that are given good tender pasture throughout the summer, later on turned into ripe peas or barley, and lastly into the corn field to get the finishing touches, are going to be grown about as economically and satisfactorily as possible. The man anxious to make money, even when competition is cutting down prices, should follow this system of feeding.

POULTRY

KEEPING DOWN VERMIN THAT INFEST HENS

Some Suggestions as to Getting Rid of Lice and Mites.

LITTLE RED MITE IS COMMON.

(BY CORA N. PORTER.)

It seems a little hard to be obliged to chase lice and mites early and late, but it will save us a world of trouble if we get there first. Nearly every one has a best way of his own of doing away with these pests, but they must be kept down, else hens do not thrive. They quit laying and occasionally one dies. Sometimes numbers of them die and we stand aghast because the "cholera" has invaded our flock. Sitting hens die on the nests, and the plumage of the young chicks looks rough and they peep-peep, refuse to be comforted with drugs and pills, and finally die. Cause—lice and mites, and we didn't know we had them.

Too early for the mnow? Not a bit. We learned that lesson last spring. We thoroughly dusted the hen with insect powder, gave her a nice clean nest and fresh eggs to sit upon. She did her work well as long as she could—about two weeks. At nine one morning she did not appear right. She moved slowly, her plumage was rough, and she was all drawn up. I thought she was cold, for the weather was bad. I fixed her up, thinking to make her more comfortable. At noon she was dead and the nest literally alive with mites. I know now this is none too early to begin the battle. Lately I have been spraying the hen-house with hot soapsuds into which enough carbolic acid had been placed to smell pretty strong. I try to get it into every crack and crevice. Nest boxes, roosts and all are treated in this way. When dry we go over the roosts and nests with a strong liquid louse exterminator. This has to be done occasionally all summer and seems to keep them pretty well in check.

Sometimes, to make assurance doubly sure, after having thoroughly cleaned the hen-house as above, I drive all the fowls from the house, close up the doors and windows, making everything as tight as possible. Then I take an old iron kettle, put into it about two ounces of wood alcohol and half a pound of sulphur, then a shovelful of good live coals and get out of the building as quickly as possible. Keep the door closed about an hour, two or three is better. Now we can feel reasonably certain that the work of extermination is complete.

For treating the fowls the most popular remedy is Persian insect powder, though some use a bath of one part carbolic acid to sixty parts water, into which the birds are dipped. Carbolic powder, or powdered sulphur may be dusted in the plumage. Under the wings of full-grown hens, an ointment of lard, kerosene and sulphur may be used, but on small chickens the kerosene should be omitted. Young chickens hatched under hens nearly always have lice upon them. They are found upon the head and under the throat, where they have fixed themselves to the feathers near to the skin, so that, unless a close examination is made, they may very easily be mistaken for pin feathers. If badly infected, the parasites may be found under the wings and about the vent.

The little red mite is very common and very active, attacking the birds at night. By day it hides in the crevices and corners of buildings, nests, perches, floors, etc., where it may be found in great clusters. It is very small and of a yellowish white or dark red color, according as it is fasting or is more or less filled with blood. It is injurious, not only on account of the blood which is abstracted, but because of the itching pain, and loss of rest which necessarily follows its activity.

The development and multiplication of these parasites is very rapid, thousands developing from a single pair in a few weeks. It has been estimated that the second generation from a single louse may number 2,500 individuals and the third generation may reach the enormous number of 125,000, and all of these produced in the course of eight weeks. Filth, heat and dry weather favor the development and propagation of these parasites. No disease of domestic fowls is so persistent, destructive and difficult to completely remove as lousiness, and only by persistent effort and continued warfare can they be kept in subjection.

THE GREAT JERSEY COW FIGGIS 76,106.

At the World's Fair at St. Louis in 1904, Figgis was champion and grand champion over 21 entries. She is entered in the register of merit, Class A, and has a test of 19 lbs. 15 oz. When in her 17th year she gave 57 lbs. milk in one day. She gave 9,181 lbs. 7 oz. milk in 7½ months that tested 547 lbs. 6 oz. butter.

HORTICULTURE

DOES IT PAY TO SPRAY QUERY ANSWERED

A Great Mistake Made in Planting Trees Close Together.

HARDEST INSECT TO FIGHT.

BY CARL G. STELLER.

It more than paid for me, and I would not want to raise apples without spraying. About fifteen years ago we started to spray and we always had a fair crop of apples, and there was not one year that we did not have apples to sell. When we started in spraying some of our neighbors laughed at us and said they could raise apples as well as we could without spraying, but it was not very long before they came to us and bought apples because they didn't get any apples of their own, for they did not spray.

We started in with a barrel pump, but as we planted more and more trees each year it gave us more spraying and that is not an easy job in the summer time, especially in hot weather. I concluded to get an engine and let it do the pumping. The first year we sprayed two times, using London purple, and we continued using it until about six years ago, when we used Bordeaux mixture, the 5-5-50 solution. Five years ago last spring I bought a gasoline engine and a double-acting nozzle spray pump, a low truck and a tank. Then I commenced spraying for myself and others. I know that I sprayed orchards that would never have had any spraying if I did not have a machine to do it with.

I start the first spraying as soon as the buds look as though they would open, which for the last five years has been from the 1st of May to the 5th. I spray every ten days after that, sometimes four or five times or as many times as people want to spray. I find that the last two or three years we have to spray every ten days if we want good apples. I noticed this year that the curculio did more damage to the apples in one week from May 30 to June 7, than I ever saw done in one summer. I use Bordeaux mixture and white arsenic, which I think is better than Paris green. I also used arsenate of lead at one time and I think it sticks better than white arsenic, at least it did on us that handled it, for it was a hard job to get it off of our hands and faces.

I have read a great deal about a fine mist spray and I think it would be all right on a level place where a man could use a tower, but in our part of the country, where it is so hilly, you can not tell any moment whether your low wagon would go over, a tower would be out of the question. Among other things, the trees are planted too near together, sometimes I have to get under the waggon to get through between the rows. I always use a good stream and get the trees quite wet so it starts to drip from them.

One mistake common to most of us is that we plant the trees too close together. If I ever plant another orchard I will put the trees eighteen to twenty, or even twenty-four feet apart so I can drive up and down on each side of the row. I find that we have to be very careful to spray each apple; if we miss one it will be all stung up. Another thing is to keep the dry wood and old brush out of the orchard. If you don't, you just keep breeding insects faster than you can destroy them.

I have found the last two years that we have to do late spraying about the 1st of August. The last two years we lost more of our late apples from getting stung after than before that date. I went through our orchard the last part of September and I never saw the apple curculios so thick as they were there on some Hibernal apples. I think that is the hardest insect to fight, as it does so much damage in a short time.

DAIRYING

COW WITH SHOW RECORD PREFERABLE

But the Animal Should Be a Heavy Milker.

FEW COMBINE BOTH QUALITIES.

(BY J. J. HOOPER.)

A correspondent asks whether we would prefer to purchase a dairy cow with a show yard record or an animay plain in some parts, but one that could yield a heavy flow of milk? We would prefer to buy a cow with the show yard record and at the same time a heavy yielding cow. We have seen many good cows that have been ruined through being fitted for the shows.

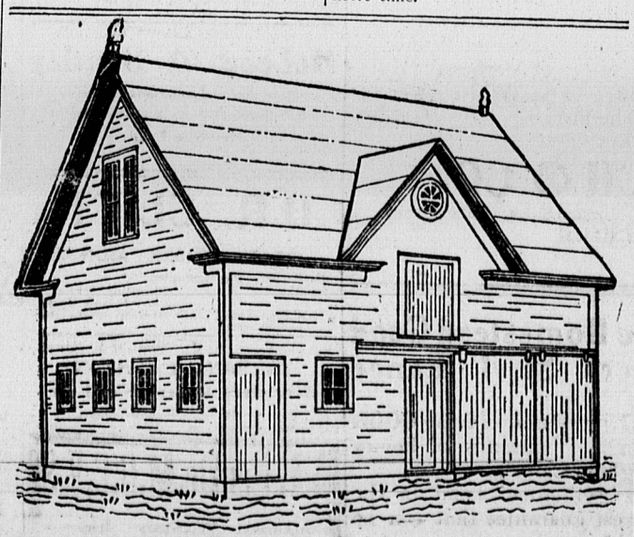
It is a general custom to allow the udders of the cows to remain full of milk for approximately twenty-four hours (longer or shorter in different instances), before the animals enter the show ring. This results in spoiling the udder in numerous instances, and in any case is not good for the cow.

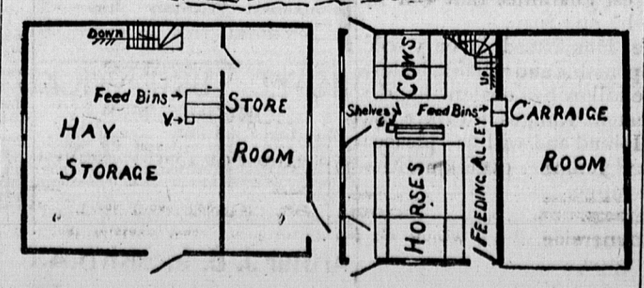
Of the two qualities, show yard form or performance record, we should unhesitatingly take the heavy milking cow It is unfortunately true that many judges have fallen into the habit of selecting in the show ring cows that are of the "pony" build, with small digestive capacity and small udders, cows that may please the eye, but that prove failures at the pail.

A farmer of practical experience knows the difference between a cow that is fit only for the show ring, and holds in contempt the award of a judge who has such poor judgment that he places the blue ribbon on such a cow. The judge of dairy animals should always be a man of great experience with the particular breed that he is endeavoring to pass judgment upon. Bulls are more difficult to judge than are cows. Heifers in milk are easier to judge than younger ones.

There is no reason why an animal should not be a good show ring winner and at the same time a good milk producer, except that there are not many cows which combine the two qualities to the point of perfection. A heavy milch cow is frequently a plain animal. She is the cow with a big barrel, and lots of digestive capacity, wide, rough tailhead bones, a rugged, straight back, and a big bag, whether in perfect proportion or not.

Theer are a few animals that combine the two qualities, but an exceptional person is required in role of judge to select the type when he finds it, and who will not permit the foolish show yard type to get away with him. Anyone who wishes to study that we consider a well-nigh perfect cow should look at the cut of the Jersey cow, Figgis, which was declared queen of the ring at the St. Louis world's fair. We consider Figgis well-nigh perfect, a cow that proved the maxim "handsome is as handsome does."





A SUBURBAN OR VILLAGE BARN.

The building herewith shown is well suited to the needs of the suburban or village resident, or of the man owning a small tract of land, and making a specialty of gardening, poultry, bees or fruit. Size can be varied within certain limits.

As shown it has one single and one double horse stall. The latter can be used as a box stall. There are two single cow stalls. The cows are loose, being kept in by chains behind them. There is a harness room, shelves for milk pail, etc., medicine cupboard, ventilator, three feed bins in hopper form so as to take little room in the stable and filling from above, and stairway with door balanced with weights at top.

The carriage room is large enough for a set of vehicles, or part can be used as a repair shop. The hay loft will hold at least two loads, and some bedding. The storeroom fills a general need.

Outside walls are covered with drop siding, and roof has prepared roofing. Foundation is of grout, brick, or cement blocks. Stable floors are of cement, with wood blocks in stalls.

The style of exterior finish may be varied to harmonize with that of the other buildings. A cupola may be substituted for the iron vent cap. This design gives in compact form a complete small barn and stable, at moderate cost.

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.

Cows Die.—C. E. L.—What ails my cows? Three have died within three days. They were sick from twelve to eighteen hours. On opening them I found the first stomach hard and dry and the grain whole. They were well fed and watered. Ans.—It is impossible to give cause of death of your cows from your description. There is reason for thinking that trouble infectious.

Worm Remedy.—W. K.—I saw a remedy for worms in horses: Sulphur, 10 oz.; pulv. spigelia root, 8 oz.; pulv. poplar root, 20 oz. Are these liquid medicines? I had the prescription filled at the drug store and he gave me a root to be boiled and mixed. Ans.—The druggist should have mixed all the powders together. Give a tablespoonful of the powder in feed three times daily.

Itch.—S. O. H.—My five-year-old mare has some kind of an itch or skin disease on one side of her body. She has rubbed the hair off in some places and the hair is full of dandruff. There are no sores on the skin except where rubbed too hard, and she eats and drinks well and feels good otherwise. Ans.—Try washing with salt and water. Give tablespoonful soda sulphite pulv. in feed.

After Foaling.—P. A.—How soon after foaling should a young mare be bred? How soon should she be worked? What age should she be when bred the first time? Ans.—If the mare does well and does not have to work too hard she can raise a colt each year from three years on. If carefully handled the mare will not need to rest more than two weeks. Many mares raise fine colts which are not given any rest after foaling.

Wire Cut.—C. B.—Mare was cut with barbed wire on her shoulder muscle. The cut was large but not deep. The cut was washed thoroughly with carbolic solution. In a day or two the leg swelled badly, but subsided after poulticing with flaxseed. There is now a soft spongy swelling. Is there danger of blood poison? I wash the swelling with carbolic and apply lard and turpentine. Ans.—If the mare is eating and feeling good the swelling need not worry you. Present treatment is good, but she should have daily exercise.

Lump on Teat.—H. J.—I have a cow that came in fresh last spring and in one teat just where it starts from the udder there was a little lump which stopped the flow of milk. She is coming fresh in about two weeks and that lump is there yet. Two days ago another cow came in and is in the same condition. What is the cause and treatment? Ans.—The little lumps or tumors in the teats can only be removed by a surgical operation. If the cows do not pay as milkers better sell for beef.

Ring Bone.—A. H.—I have a horse that has a large unnatural growth or bony enlargement on one of her hind legs. We have blistered several times this winter, but it does not seem to help. She is lame and rather drags her leg when she walks. It seems to be aching all the time, for she keeps it raised from the floor more than half the time. Please advise. The swelling is situated in the large pastern. Ans.—You have done all you can, and should now have the horse treated surgically by a competent veterinarian.

Cows Shrink in Milk. — Subscriber.—My cows shrink badly in milk and seem to be out of condition after coming fresh. They seem to be listless; do not eat much; sometimes they even refuse to eat their grain feed. There is a peculiar odor about them that is very noticeable; excrement about normal except as to quantity; muzzle dry. One got that way in January, about two weeks after calving and was sick about three weeks; then began to recover and now the milk flow is about normal. Now I have two that have just got sick one calved two and one three weeks ago. Ans.—These cows should be fed on roots, carrots, potatoes, etc., with some bran mash each feed.

HOW TO RAISE RHUBARB.

Given a good place and proper care rhubarb or pieplant is very productive. A dozen hills set on the south side of a garden wall or similar warm place will supply an average family. The plants may be grown from the seed, but the quickest way to get them started is by dividing old hills. These will begin growing at once so that a few stalks can be pulled the first season. The ordinary varieties are set 2 seed put in drills 1 inch deep. Cover varieties such as the Mammoth are planted in hills 4 x 6 feet apart.

Moist loamy soil, well drained and not very susceptible to drouth, affords the best seed bed for rhubarb. It should be exceedingly rich and the seed pit in drills 1 inch deep. Cover with a hoe and press down well with the foot. A pound of rhubarb seed will usually produce about 1,000 plants. It is a mistake to allow the plants to go to seed. If very large stalks are desired for a fancy trade all but the vigorous centre buds should be thinned out. A large pot filled with liquid manure and placed between the hills will stimulate growth.

ANIMAL FOOD FOR POULTRY.

Bones and meat secured from the butcher and cut into fine pieces by means of a bone cutter are perhaps the best substitute for the insects a hen finds when on free range. Horse meat, being free from tuberculosis is probably slightly preferable to that from the butchers' stalls. Skim milk is a good substitute for meat, but being so bulky the fowls rarely eat enough of it to supply the required nutriment unless it is soured to a clabber and the whey drawn off. "Dried beef scrap is a product of the packing houses and if of assured quality makes a fair substitute for fresh meat. It should be fed in hoppers and should constitute about eight or ten per cent of the grain ration.

DIGESTIBILITY OF MILK.

There are but few foods that have such a high digestibility as milk. When it is combined with other foods, it is practically all digested, and also assists in rendering foods with which the milk is combined more digestible and valuable. In experiments at the Minnesota Experiment station it was found that when milk was added to a ration, the digestibility of the entire ration was materially increased. This is probably due to the digestive action of the enzymes or chemical ferments which milk is known to contain, and which enable cheese when placed in cold storage to undergo a ripening or digestive process. Milk then is valuable not alone for the nutrients which it contains, but also because it makes the foods with which it is combined more digestible and valuable.