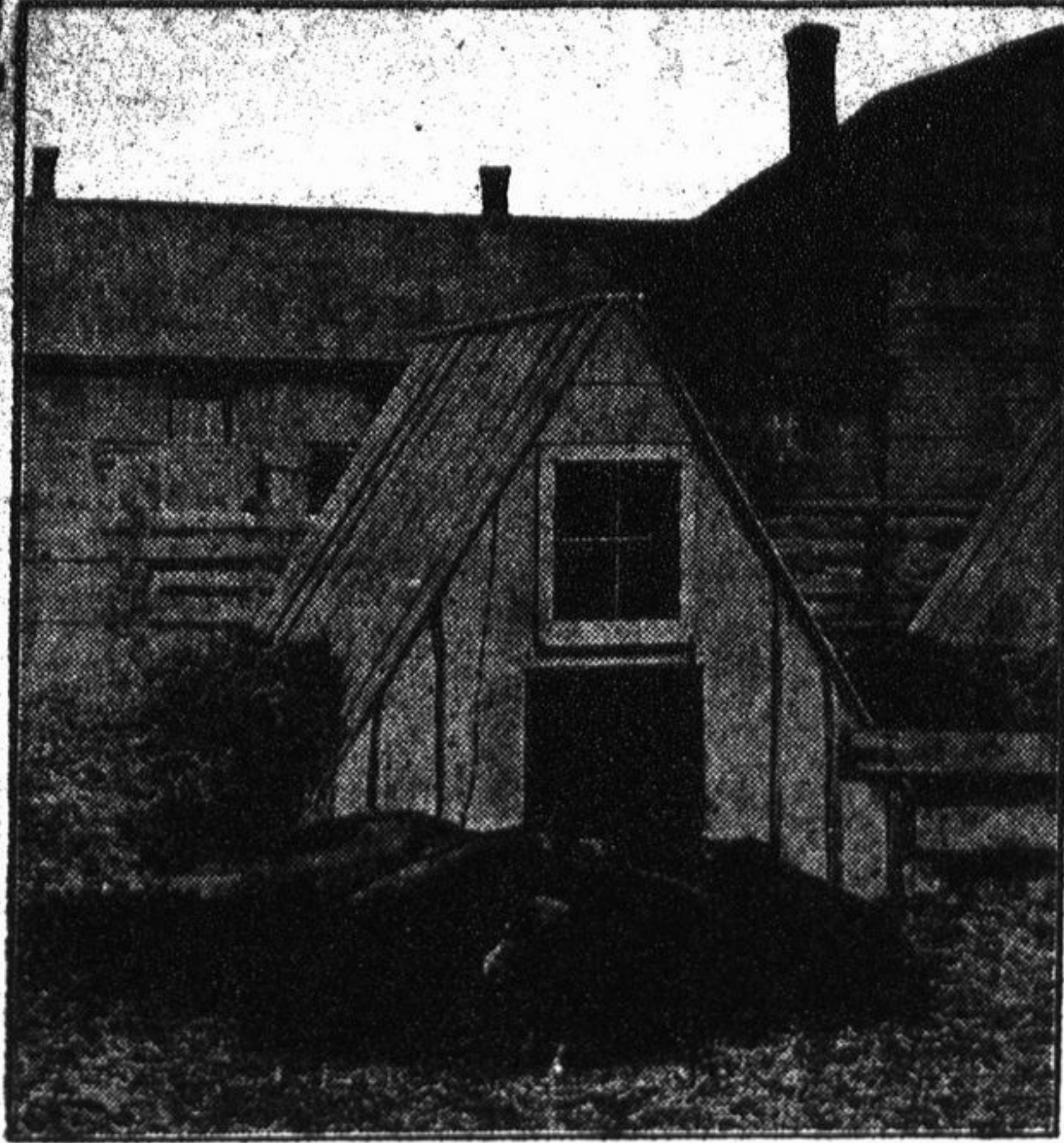


EXCELLENT HINTS FOR SWINE BREEDER



Hog Cots Banked Up on Sides to Keep Animals Warm.

There is a great difference in opinion among farmers—and good farmers at that—as to the age at which sows should be bred. Some men breed gilts at ten or eleven months, while others do not breed until they are two years old.

Never select a brood sow with a long, lean, narrow head, and a wicked little eye. She is apt to be nervous and cross and a pig eater.

It is a good plan to feed a little grain to the growing pigs, even though they are running on good pastures.

In the South many hog raisers turn their young hogs out into the swamps along the rivers and creeks, and pay no attention to them during the entire summer, rounding them up in the fall, only to feed them two or three weeks before shipping them to market. Some surprisingly good results are obtained in this way, too.

Sows with a young litter should be watched carefully, for there are many sows that do not give enough milk to start the pigs off well. In such cases the youngsters should be fed a little whole cow's milk, warmed at first, and later skim milk, with a handful of shorts in it.

The man who raises pigs for market, and pushes them along with some grain, shorts and oats, even while they are running in rich pastures, will bring them to perfection much more quickly than if they are allowed to run on grass alone, until fall.

Keep the box full of charcoal, salt and sulphur, where the pigs can get at it all the time. It may surprise you to find out how much they will eat, but it will pay to provide this food for them.

When pigs are old enough to eat they should be fed in a separate pen from that in which their mother is confined. A door just large enough to admit the pigs and keep out the mother should be placed in the partition, so the youngsters can come and go at will.

Sunshine and exercise are the indispensable rights of all farm animals.

Modern hog houses are, as a rule, too close, too warm and too comfortable.

Poor ventilation is the common fault and the inaccessibility to sunlight is an equally serious one.

It is a sad mistake to imagine that increasing the bulk of the feed for hogs by adding water will do them any good.

Clean food and clean quarters will keep the hogs healthy.

Keep the troughs clean. Never feed any fermented food.

Among the feeds that should be given is skim milk, which is very good, as it contains a large amount of protein, and is bulky. Clover is an exceptionally good feed in the green state, and even clover hay steamed proves very nutritious. Oil meal cake contains much nutriment of the right kind. Where alfalfa can be had it is also good. Oats in various forms furnish the exact kind of nutriment most serviceable for the breeding animals.

The sow that is carrying pigs needs a large amount of protein food on account of the extra bodies she is building up. But care must be taken not to have too much protein in the food, as the starchy parts are also needed. The starch-forming elements should be five or six times the protein elements. This is about the composition of oat meal. Bran is a highly nitrogenous feed and should be balanced with something else when it is fed. All plants that have pods are rich in protein and are thus good materials out of which to make food for breeding swine.

Young boars will usually make better growth if kept separated from the sows. There might be conditions or exceptions where this would not be true, but they will certainly be rare. Not only should the boar be separated from the sows when there are young pigs around, but at all other times. The most expensive way of keeping a boar is to let him run with the rest of the herd. He should be kept in a lot by himself, but this lot should be large enough to furnish ample green feed and plenty of exercise.

Pigs make the heaviest and cheapest gains in live weight during the first two months of their existence.

Changes in the character or quantity of the ration should always be made very gradually.

Do not judge a brood sow alone by the number of pigs she raises. Quality must always be considered. Six or seven good even pigs are often worth more than nine or ten uneven ones.

When you get a business sow keep her as long as she does well.

GOOD REMEDY FOR PARALYSIS IN HOGS

Colorado Expert Recommends Treatment for Ailment—Cause of Trouble.

(By GEORGE H. GLOVER, Colorado Agricultural College.)

Partial or complete paralysis of the hind legs of hogs is seen so often in swine herds that a common cause has been suspected but not definitely determined.

Inbreeding, parasites, and an unbalanced ration, have each in turn been assigned as the probable cause of this particular form of paralysis, and now it is quite generally attributed to a lack of phosphate of lime. This salt in a form that can be appropriated may be deficient in the ration or not properly appropriated by the tissues of the body, or again, it may be because of a drain on the system for phosphates to nourish the growing fetus or the young after birth.

It is a well-known fact that there is a deficiency of phosphate of lime in the bones and other tissue of pregnant animals and in those that are sucking their young. This is especially true of the sow. But this condition is not confined to pregnant animals. In one instance a herd of 44 hogs, of both sexes, and ages ranging from ten months to two years, nearly all of them were affected with partial or complete paralysis of the hind legs. The ration had been largely raw potatoes.

They appeared to suffer no pain, the appetite was quite normal. A balanced ration would probably have prevented this condition. The following treatment has been recommended and should be helpful in these cases. One tablespoonful of cod liver oil, 15 grains phosphate of lime and three drops of fluid extract of nux vomica mixed with the food twice a day.

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KEEP LAYING HENS MOVING IN WINTER

Throw Their Feed in Litter of Some Kind and Make Them Scratch for It.

Make your hens work for all they get to eat. Keep them moving about during the day as much as possible by throwing their feed in chaff, cut straw, shredded cornstalk or other material. Give them as much of a variety of grain as you possibly can.

Wheat, oats, cracked corn, barley and buckwheat are all good, but should be mixed together when fed. Never feed all of one kind of grain at one time. They like a variety. For green food, second cutting of clover is one of the best. Cabbage, carrots and mangol-wurzels can also be fed to advantage. They should be fed at least three times a week meat of some kind.

Beef scraps soaked and mixed with bran, enough to take up the moisture, answers this purpose. Skim milk added to the mash will give good results. Plenty of fresh water and grit should be where they can have access to it at all times.

Separate the Hogs. Separate the breeding stock from the fattening hogs, also separate the larger from the smaller ones.

DAIRY



BUSINESS OF WINTER DAIRY

Adapted to Peculiar Conditions and Localities—Special Attention to Products When Highest.

(By W. MILTON KELLY.) Good farming consists of making a profit out of the farm and at the same time leaving it better at the end of each year than it was at the beginning.

One of the mistakes that we often make when we are measuring the success of a farmer is when we consider only his net profits for the year.

This measure is not correct unless we take into account how much he has drawn from his capital stock, the fertility of his farm, the buildings, machinery and implements. It must also supply him a comfortable living for his family.

Dairying is of two kinds, winter and summer dairying, and each is adapted to peculiar conditions and localities. Summer dairying is best adapted to lands where grass growing is the most important feature and on cheap lands that are not productive of large crops of grain and fodder.

The cows are bred to come in about a month before they are turned out in the spring, and fed just enough to keep them healthy during the winter. This system of dairying does not require as expensive buildings as winter dairying, and is as profitable.

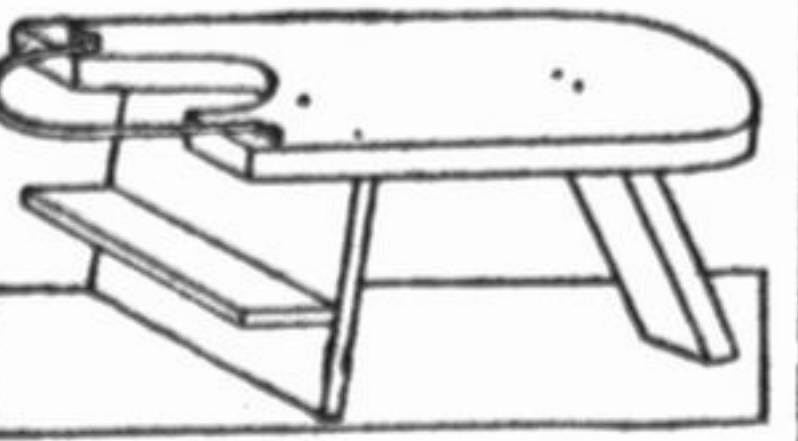
Winter dairying implies giving special attention to the production of milk and dairy products in winter when these productions are highest. The cows freshen in the fall and are fed grain and commercial foodstuffs in connection with their fodders and hay and by consuming considerable purchased grains it adds a large amount of fertility to the farm.

Some advocate summer dairying and some claim that winter dairying is the most profitable; but my experience convinces me that all-the-year-around dairying is more profitable than either, as it brings in about the same amount of money each month when it is conducted properly and the cows can be made to give milk all of the time, with the exception of six weeks or two months before they are due to freshen.

EASY TO MAKE MILK STOOL

Pail Is Kept Close to Cow's Udder and There Is Little Danger of It Being Knocked Over.

It is not a great deal of trouble to make a milk stool that keeps the pail up close to the cow's udder, and at the same time holds it so that there is



Handy Milk Stool, Not Easily Tipped Over.

little danger that it will be knocked over, writes Chester M. Wilson in Farmers' Mail and Breeder.

The front leg of this stool has a projecting rest upon which the pail is placed to keep it from the ground. The front is hollowed to receive the pail, which is held in place by a wire loop.

VALUE OF SILAGE FOR FEED

Corn and Clover Contain Greatest Percentage of Dry Matter—Roots Contain 90 Per Cent Water.

(By R. R. GRAVES, Dairy Department, Oregon Experiment Station.)

The relative value of roots, kale and silage—the usual sources of succulence for winter feeding—depends upon their composition, comparative feeding values, cost of production, keeping qualities and convenience of feeding.

The total digestible nutrients in one ton of corn silage is 328 pounds. In a ton of red clover silage the total is 224 pounds, but the nutritive ratio is 1 to 6.9, while in corn it is 1 to 11. The digestible nutrients in a ton of sugar beets is 224 pounds, with a ratio of 1 to 8.5. In rutabagas the total is 186 pounds to the ton, with a ratio the same as that of sugar beets. The digestible nutrients in a ton of kale are but 139 pounds, while the ratio is very narrow—1 to 2.8. It is also true that the nutrients of apple pomace silage are pretty high, about 216 pounds to the ton. Their nutritive ratio is the widest of any of the common winter succulents, being 1 to 15.3.

The corn and clover silage contain the greatest percentage of dry matter, while kale and some of the roots contain 90 per cent water. One ton of corn silage contains as much digestible nutrients as a ton and a half of sugar beets, 1 1/2 tons rutabagas or carrots, and 2 1/2 tons of kale.

"SLICKING UP" THE OLD "HEN HOUSE"



House Cleaning Time.

A thorough "house cleaning" of the poultry quarters every spring and fall will go a long way toward increasing the production of the flock and decreasing the number of untimely deaths among the chicks, according to a statement recently made by J. G. Halpin of the college of agriculture, University of Wisconsin.

Cleaning out the droppings and the sour top layer of soil from the floor, and hauling in some clean, fresh dirt or sand, is the first step in the "clean-up." By bringing the level of the floor up several inches above the level of the ground outside, good drainage is secured and the fowls will have dry "footing" which is absolutely necessary to keep them healthy. Roosts should be scraped clean of filth in order to remove possible lodging places for lice. Brush all the old cobwebs and dirt from the walls and corners, and take every bit of movable material out of the nests.

By thus "stripping" the house, we have a chance to get at the lice and mites, which are among the worst enemies with which poultry have to contend. These pests kill off large num-

bers of young chicks in the spring and sap all the life out of the older fowls, cutting down their production tremendously.

Spray liberally the whole inside of the house, with a mixture of 14 parts of kerosene and one part carbolic acid, being very sure that every crack and corner where lice and mites or their eggs might be hidden, is thoroughly soaked. To do the spraying, any ordinary hand spraying machine, such as we ordinarily use to spray with paris green in the garden, or to whitewash in barns, may be used.

After this spray mixture has dried off, apply a good coat of whitewash. Finish up the job by covering the floor with several inches of bright straw or chaff, filling the nests with some clean straw or wood shavings and furnishing a dish of clean water and a hopper of crushed oyster shells and grit.

If the chickens can be treated for lice before being called into their renovated home, the job will be complete and thorough, and the chickens will begin a new era of prosperity for their owner.

HOW TO PICK THE MONEY-MAKING HENS

Do you know which chickens in your flock are producing enough eggs to pay for their feed?

Can you tell the hen that lays thirty eggs a year at a time when they sell at retail for 15 cents a dozen, from the hen that lays six times that number, many of them in the season of high prices?

Can you tell the steady layer from the "boarder" in your flock without first opening her and looking at the egg sack?

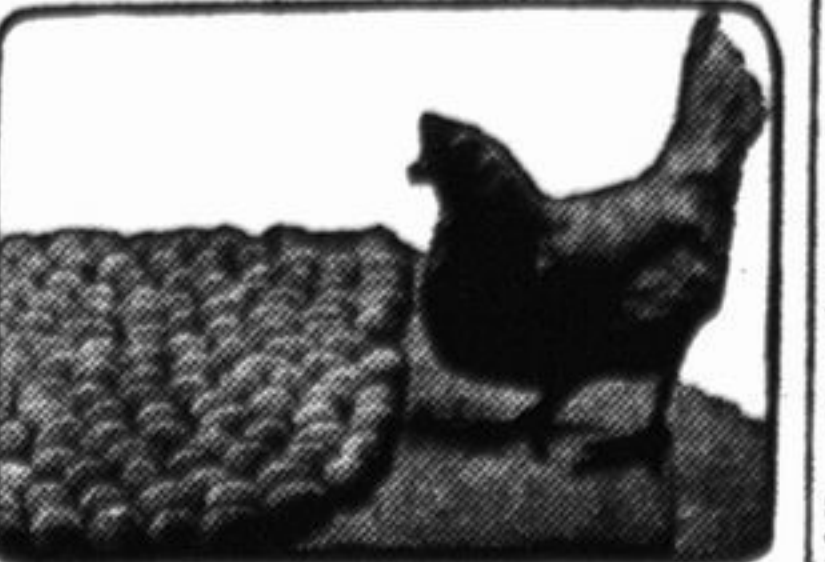
These are some of the questions that puzzle poultry farmers the country over.

The hen that produces three or four eggs a week, and is on the job nearly the year around is the hen that is always hustling, according to J. G. Halpin of the college of agriculture, University of Wisconsin.

THE HEN THAT LAYS THE EGGS

Is busy all day. Is nervous yet unafraid. Has bright eyes and a scarlet comb. Is always singing and always hungry.

She is the first hen off the roost in the morning and the last on at night. She is always foraging; following the plow in the spring in search of grubs and cut-worms, roaming the woods and fields during the summer, devouring many injurious insects and their larvae, and busily gleaning about the threshing machine or gorging herself



With Her Year's Work Laid Out Before Her.

on weed seeds in the fall. She is the hen that is unafraid, yet nervous; the hen with the bright eye and the scarlet comb. She is always singing as she works and is generally at work scratching away for dear life making her own living out of God's good green earth. She goes often to the water tank and drinks deeply for much of the eggs she produces is water.

Litter for the Hens. Gather up all weeds, grass, leaves, and waste hay or straw and keep it on hand for the scratching shed. In winter when the fowls have pretty well worn out their litter, a carload of this trash will keep them busy for several days. The weed seed and the few insects it contains give them a new incentive to dig.

Litter in Hen House. Have from eight inches to a foot of leaves or straw on the chicken house floor, and keep whole grain in this litter.

To Improve the Egg Crop

1. Keep a standard variety.
2. Provide clean, dry nests.
3. Gather eggs twice daily.
4. Keep from heat and odors.
5. Market twice weekly.
6. Confine all male birds after June 1.

—Halpin.

CHICKEN MENUS HIGHLY POPULAR

Every since the good old days when the trusty "blunderbuss" of the pioneer used to bring down coveys of partridges and quail and an occasional wild turkey along the virgin trail of the wilderness, plump, juicy, well cooked, soul-satisfying poultry and "chicken fixin's" have been a source of gratification to many people.

The humble hen and her descendants of both genders have proved a delectable topic of conversation at many a boarding house. From the tender "back piece" to the brittle cartilage at the point of the breast bone, and from the neck to the "Parson's nose" every morsel has its own separate and distinct appeal to the human appetite. Few can resist it, and even babes in arms have been known to gnaw at a roast wing with greedy satisfaction.

Even with the advent of the cabaret and the "hot dog" lunch places the importance of chicken on the menu has not been forgotten nor replaced. To the housewife who has the wherewithal to obtain a chicken and the skill to prepare it, there is no need to worry over what shall be the crowning glory of the feast spread for special "company."

There are many ways of making the ordinary barnyard variety of fowl taste delicious beyond the wildest dreams. A few recipes of a safe and sane nature from the Wisconsin Farmers' Institute Cook Book are added as an aid to cooks in search of other ways to serve this popular meat:

To Roast Poultry.—One rule will apply to all poultry. Have oven very hot until skin is browned, then cool, and if poultry is stuffed, cook twenty minutes to the pound; unstuffed fifteen minutes. Salt pork is very nice to use for basting purposes; baste frequently; when half done add one teaspoonful of salt and one-fourth teaspoonful of pepper.

Chicken Fricassee.—Dress, clean and cut up the fowl, put in a kettle, cover with boiling water, bring to a boil, then simmer until tender. When half done add pepper and salt; finish cooking, thicken the stock, add a little cream if you can spare it. The time for cooking must depend upon the chicken or fowl used; an old one may be stewed this way for three hours.

Maryland Chicken.—Dress, clean and cut up a chicken; sprinkle with salt and pepper; dip in flour, egg and crumbs; place in well greased dripping pan and bake in hot oven, basting with one-third cupful melted butter. Arrange on platter and pour over two cupfuls cream sauce.

Creamed Chicken.—One and one-half cupfuls cooked cold chicken cut in dice, one cupful white sauce, one-eighth teaspoonful celery salt. Heat chicken dice in sauce, to which celery salt has been added.

CASCARETS FOR SLUGGISH BOWELS

No sick headaches, sour stomach, biliousness or constipation by morning.

Get a 10-cent box now. Turn the rascals out—the headaches, biliousness, indigestion, the sick, sour stomach and foul gas—turn them out to-night and keep them out with Cascarets.

Millions of men and women take a Cascaret now and then and never know the misery caused by a lazy liver, clogged bowels or an upset stomach.

Don't put in another day of distress. Let Cascarets cleanse your stomach; remove the sour, fermenting food; take the excess bile from your liver and carry out all the accumulated waste matter and poison in the bowels. Then you will feel great.

A Cascaret to-night straightens you out by morning. They work while you sleep. A 10-cent box from any drug store means a clear head, sweet stomach and clean, healthy liver and bowel action for months. Children love Cascarets because they never gripe or sicken. Adv.

ASKED SPEAKER FOR A SONG

And Bibulous Gentleman Escaped Anger of Dignified Head of British Parliament.

Mr. Balfour is credited with knowing more good stories about the British house of commons than any other member. One of his best is the following, which he told at a public dinner some time ago:

"I remember hearing of a distinguished gentleman," he said, "who reported in the press gallery just about one hundred years ago. He had had an excellent dinner, washed down with excellent wine. He was bored with the debate. He was wearied with the superfluity of rhetoric, which prevailed just as much one hundred years ago as today. He got bored, and he got up and asked the speaker for a song.

"The speaker of that day was Mr. Addington, a gentleman who was nothing, if not proper. The whole house, except the speaker, was convulsed with laughter.

"The sergeant-at-arms was appointed to. He went to the gallery and he inquired. The culprit retained the presence of mind to point to a respectable Quaker sitting below him, and this unfortunate gentleman was actually taken into custody."

Badly Matched.

Mrs. Yeast—This paper says the matching of colors has been brought down to an exact science by the invention of a machine for the purpose.

Mr. Yeast—You ought to get the people who run the store where you buy your hair to get one of those machines, dear.

Fitting Ejaculation.

"Here that mean fellow has sent me a lip stick."

Liberal Doses.

Subbs—How often is this made one to be taken?

Doctor—Between coughs.

A Difference.

"Authors nowadays don't live in attic, do they?"

"No; they prefer best sellers."

A man hasn't a very good religion when he regards Sunday as the loneliest and dreariest day in the week.

The Meat of Wheat

The average yearly consumption of wheat in the United States is nearly six bushels for every man, woman and child.

But—Much of the nutriment of the wheat is lost because the vital mineral salts stored by Nature under the bran-coat are thrown out to make flour white.

In making Grape-Nuts

of choice wheat and cracked barley, all the nutriment of the grain, including the mineral values necessary for building sturdy brain, nerve and muscle, is retained.

Everywhere Grape-Nuts food has proven a wonderful source of brain and nerve strength, and you may be sure