



One of the largest and most successful dairymen in this country is Horace L. Bronson of Cortland county, N. Y., whose dairy business is conducted on the same plans as a modern department store. In a recent issue of the American Agriculturist Mr. Bronson tells of the importance of light and ventilation in the cow barn as follows:

Cows are infinitely better off in a cold, dry stable with plenty of light and good air than in an overheated dark room. I never knew a cow to get pneumonia or tuberculosis from being in cold, dry, well lighted quarters, but I have known whole herds to be affected and destroyed from overheated, ill lighted stalls. The component parts of air are oxygen and nitrogen. Oxygen supplies life to the animal kingdom and nitrogen to the vegetable. Without oxygen animal life cannot be maintained, for the reason that when pure air is taken into the lungs the oxygen is appropriated to vitalize the blood.

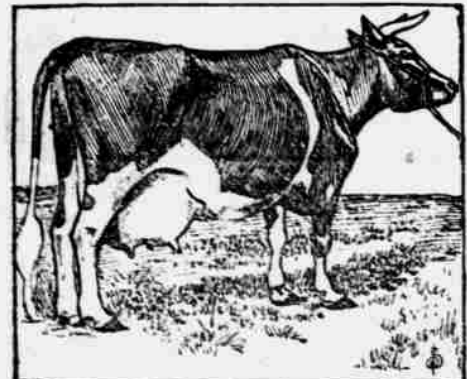
There are people, I believe, who wrongly suppose that all cold stables are supplied with fresh air. This is a mistake, and you should see to it that your cow barn is supplied with intakes through which fresh air from the outside shall be introduced in front of the cattle, and then provide a central shaft leading from near the stable floor, up through the stable and through the roof. This is an outtake and will maintain a moderate current, drawing the impure gases from the bottom up through the shaft and into the open space.

If your stable is not well lighted—by that I mean thoroughly lighted—simply put in more windows, sufficient to give your stock a room as well lighted as your own living room. Do not minimize the importance of sunshine, for it is one of the most effective germ destroyers in nature. Thirty minutes of sunshine will generally put out of business many disease germs. An abominable, poorly lighted and ventilated stable can be changed over into a model one at trifling expense. This can be done generally by the farmer and his help without employing skilled or high priced labor.

Land plaster should be used liberally. Sprinkle it over the drop when filled and again after it is cleaned. The mixing of the plaster with the compost induces a change wherein the nitrogen or ammonia becomes fixed. Without this the ammonia will to a large extent escape and float off into the surrounding atmosphere. Independent of the health of the animals, permitting the ammonia to escape is a waste which no farmer can afford. Bear in mind that this ammonia is the most expensive fertilizer that you have to buy. In the form of nitrate of soda, it often costs us \$35 per ton, while muriate of potash can be bought for about \$40, sometimes for about \$35; phosphoric acid about \$45 per ton. Again, the plaster is generally worth its cost if applied directly to the land. I generally buy the plaster in carload lots, costing from \$2.50 to \$3 per ton. If you haven't used it in the past, try it and just see how nice it will seem for you to sit down to the milking in a clean, sweet smelling stable.

Regularity in milking and feeding is necessary for best results. Many farmers pay little heed to either point. Generally farmers are compelled to depend to a greater or less extent upon hired help to do their milking. In all such cases the farmer should be careful to see that his hired men are good milkers. There are plenty of shiftless fellows, who, when left to themselves, will ruin the best cow by bad milking. A poor milker is an abomination. No cow can keep a sound udder for any considerable time unless she is milked clean at least twice daily, and even this does not quite cover the ground. She must be milked quickly or else she becomes a stripper—that is, she will hold back her milk for awhile, and then it is but a short time before she has lost one or more of her quarters.

**A Fine Holstein.**  
One of the finest Holsteins in this country is Pieterje Josephine Abberkerk. This cow took first prize at the



PIETERJE JOSEPHINE ABBERKERK.  
Pan-American exposition and at the New York state fair and wherever shown has attracted great attention. She is one of the Brookside herd at Lacona, N. Y.

**Dust at Milking Time.**  
Just before the cows are let into the stable for milking it is common to shake up the bedding and scatter it about the stalls. This is objectionable because the dust raised makes a lodgment for bacteria, and as it settles it gets into the milk pails and on to the cows and is brushed off into the milk. Fix the stables as soon as the cows are out. It is impossible to have absolutely clean milk unless the dust is kept down at milking time.

### CARE OF MILK.

Some Good Rules by a State Dairy Instructor.

Remove the milk of every cow at once from the stable to a clean, dry room, where the air is pure and sweet. Do not allow cans to remain in stables while they are being filled.

Strain the milk through a metal gauze and a flannel cloth or layer of cotton as soon as it is drawn.

Aerate and cool the milk as soon as strained. If an apparatus for astring and cooling at the same time is not at hand the milk should be aired first. This must be done in pure air, and it should then be cooled to 45 degrees if the milk is for shipment or to 60 degrees if for home use or delivery to a factory.

Never close a can containing warm milk which has not been aerated.

If cover is left off the can a piece of cloth or mosquito netting should be used to keep out insects.

If milk is stored it should be held in tanks of fresh, cold water, renewed daily, in a clean, dry, cold room. Unless it is desired to remove cream it should be stirred with a tin stirrer often enough to prevent forming a thick cream layer.

Keep the night milk under shelter so rain cannot get into the cans. In warm weather hold it in a tank of fresh, cold water.

Never mix fresh, warm milk with that which has been cooled.

Do not allow the milk to freeze. Under no circumstances should anything be added to milk to prevent its souring. Cleanliness and cold are the only preventives needed.

All milk should be in good condition when delivered. This may make it necessary to deliver twice a day during the hottest weather.

When cans are hauled far they should be full and carried in a spring wagon.

**The Utensils.**

Milk utensils for farm use should be made of metal and have all joints smoothly soldered. Never allow them to become rusty or rough inside.

Do not haul waste products back to the farm in the same cans used for delivering milk. When this is unavoidable insist that the skim milk or whey tank be kept clean.

Cans used for the return of skim milk or whey should be emptied and cleaned as soon as they arrive at the farm.

Clean all dairy utensils by first thoroughly rinsing them in warm water; then clean inside and out with a brush and hot water in which a cleaning material is dissolved; then rinse and, lastly, sterilize by boiling water or steam. Use pure water only.

After cleaning keep utensils inverted in pure air and sun if possible until wanted for use.—S. C. Thompson, Maine State Dairy Instructor.

**Strive For the Best.**  
The essential requisites for successful rearing of calves are a high ideal of what is wanted—a good place to keep the young calves, good food as a foundation to work upon, careful, regular, liberal feeding; attention to all details, keeping the calves healthy, a love for the work and the desire to make each calf develop and prove to be a little better than its predecessors. No branch of dairying offers so great a possibility for improvement and satisfaction to the owner as a well bred bunch of dairy type heifer calves, and none will prove more remunerative. Let us set our mark high and strive for the best.—H. O. Daniels in New England Homestead.

### Dairy Wisdom

Regularity in feeding and milking counts a great deal toward success. To get best results be systematic in your work.

Use a milk cooler, but never use it in impure air.

A cow tall holder is humane and saves a lot of profanity.

Good milk depends on something more than the milker and the cow.

You harvest corn and wheat once a year. You harvest milk twice a day.

The points that make a cow a good milker make her a poor beef animal.

You can't grind corn and get flour. Neither can you feed straw and get butter.

Your barn yard is not purely a place for storing manure—not if you want the best milk.

A safe rule, says Kimball's Dairy Farmer, is never to sell any milk you would be unwilling to use on your own table.

Cleanliness is a requisite for the production of a good grade of milk. You can't keep milk sweet if you allow filth to get into it. Filth means bad milk, bad cream and bad butter. Beware of filth. Keep the cows clean.

Skim milk is the best food for growing pigs. Every particle of skim milk should be utilized to turn the wastes into pork.

If you cannot afford to buy a herd of pure bred cattle you can buy a good bull and grade up your herd. Pedigree doesn't make production, and production is what most of us are after. It wouldn't be altogether profitable for all of us to be breeders of pure bred stock, but we could all increase the productiveness of our herds to great advantage. A good dairy bull will accomplish that end more rapidly than many suppose.

The care of the cow just after calving determines to a large degree her future profit as a milker. If she is not at once brought up to a high state of milk production the chances are she cannot be during that period of lactation. If a cow is permitted to fall in her milk production, says the Farmers Advocate, it is next to impossible to get her back to her former yield.

### Selecting the Well Bred Horse

If a horse is short ribbed he is light in his middle and is nearly always a poor feeder, says a bulletin issued by the Canadian government. He has not enough to contain succulent food to give him from one meal to another. A centered horse seldom weighs well, and weight in a draft horse, if it comes from bone, sinew and muscle, goes a long way to determine his commercial value.

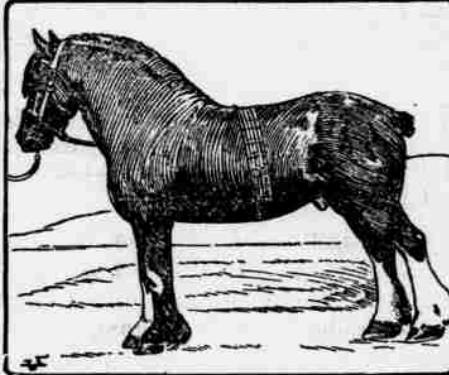
When a horse is well coupled together on top and has a short back he must have the length below from the point of the shoulder to the back of the thigh. When so built he will stand the strain of drawing heavy loads much better than if he has a long, loose back. The front feet and hocks are the parts of either a draft or a driving horse that come directly in contact with the hard work, and unless they are sound and good a horse's usefulness will be very much impaired and his commercial value very much lessened.

Before using the stallion get the groom to lead him away from you. Stand square behind him and see that he picks up his feet and places them on the ground properly, traveling in both trot and walk clear and clean, not striking the ground first with the toe and then bringing down the heel. The feet should be large and waxy in appearance. The sole of the hoof should be concave, the frog spongy, plump and elastic, because it acts as a buffer to take the concussion from acting too severely on the foot, pastern and fetlock. See that both sire and dam have sound feet, free from flatness, brittleness and not contracted. There should be no "gumminess" about the hocks of the draft horse, as it indicates coarseness. They should be wide, especially from a side view.

A stallion whose feet are contracted and brittle and whose hocks are puffy and fleshy looking should be avoided, as such hocks are generally associated with a coarseness throughout his whole conformation and a general lack of quality.

#### The King's Champion.

The king's champion shire stallion, Premier, here reproduced from the Breeder's Gazette, Chicago, was much



KING'S STALLION PREMIER.

admired at the Toronto fair, where he was shown with several other Shires from England. They were not intended for exhibition in class, but made a daily parade around the horse rings and are very good types of the famous English draft breed.

#### Effect of Feeds on Manure.

In feeding animals or buying feeds one is very likely to consider only the feeding of flesh forming value of the feeds, not taking into consideration their effect on the value of the manure produced. When more manure is needed than can be made and the supply has to be frequently supplemented with commercial fertilizers the purchase of high priced feeds rich in fertilizing material is oftentimes the most economical on account of the increased value of the manure they make. Another important fact is learned from the amount of fertilizing elements in both the solid and liquid excrements. The larger part of the nitrogen, the most expensive element, and most of the potash are given off in the urine; hence the importance of saving all of this most valuable part of the manure. Not only are other elements found in large quantities of the liquid, but they are in much more available form than in the solid.—C. D. Woods, Maine Experiment Station.

#### Sheep on Small Farms.

Many farmers entertain the opinion that it is not profitable to raise sheep on a small farm, but they are unable to give a satisfactory reason. Those who have tried it find that there is nothing else they can raise that produces so much profit, for the sheep is the cheapest animal in the world to grow and gives the producer a double compensation—mutton and wool. A good ewe will produce a lamb worth as much as or more than herself every year and besides supply enough wool to more than pay for her keep. At the same time she consumes weeds, brush and other troublesome things about the farm which other animals will not touch.—Shepherd's Criticism.

#### The Hog and the Straw Pile.

Some farmers—and they are good ones, too—advise turning the straw stack into a hog house. They fence the stack into the pen and let the hogs do the rest. This sounds like a slouchy plan, but it is not so bad after all, says Kimball's Dairy Farmer. The hog will keep his sleeping place clean if he has half a chance, and by this method he works the straw up into a fine quality of fertilizer. You can assist him in the good work by setting up posts or rails in the form of an inverted V and stacking the straw on this. Such a plan furnishes an open door and a good place for the hog to start building his winter house.

### WATER THE SHEEP.

Negligence in This Direction Is Often a Serious Matter.

Many farmers seem to think that sheep will get along all right without water, and they are often neglected in this direction. It is a bad mistake, and every one who makes it pays heavily for the blunder.

Recently I put a flock of ewes and lambs on a piece of wheat stubble to destroy the ragweed that had started up after the wheat was cut, writes E. P. Snyder in Ohio Farmer. There was no water in the field, and the sheep were left there only two days. During that time two good showers fell. The feed they got was of course tender and succulent, and I thought they would not suffer for want of water for that length of time. When I took them back to their permanent pasture I was surprised to see them rush for the water at the roadside and line up at every mud puddle to quench their thirst, and as soon as they got to the pasture they ran better skelter for the water at the farther side of the field.

**Ewes Need Water.**

One of my neighbors changed his ewes to a pasture where there was no water. It was early in the season. The grass was fresh and luxuriant, and he thought they'd perhaps do all right without water. After they had been there a week he went to see them and was surprised at their gaunt appearance. He immediately took them out. In taking them back to their creek pasture he had to pass a large public water tank. He said it was surprising to see them crowd up to that tank to slake their thirst. They lowered the water in the tank five inches before leaving it. Ewes suckling lambs especially need water. They may possibly live without it, but they'll certainly bring little or no profit to their owners. The question of profit and loss aside, as a matter of humanity sheep should never be compelled to go without an ample supply of pure water.

#### Care of Winter Lambs.

The winter lamb is an unnatural product, born under the most adverse conditions, when the days are growing colder, when the grass is frosted and seared. It is necessary to resort to artificial feeds and to apartments inside the building where economy of production requires a duplicate of summer conditions as nearly as possible. The barn must be perfectly dry, well lighted and thoroughly ventilated. Without these conditions we can never hope for the greatest degree of success in rearing and fattening lambs in winter.—Frank D. Ward, New York.

### THE SWINEHERD

Large herds of swine should be divided so that not more than a few dozen animals are kept together.

Each sow should have a separate pen for herself and her pigs.

The pens, troughs and all the surroundings of the hog should not only be cleaned frequently, but disinfected. The food for swine should be selected carefully.

Do not feed corn exclusively and be careful to supply enough green food in the winter time.

Sorghum is especially recommended as a winter food.

Always heat the hogs' food in cold weather for the animals' comfort and well being.

Get out of your head that anything is good enough for the pig. Remember, rather, that nothing is too good for the pig.—Farmers Advocate.

#### Preventing Disease.

The heavy losses in hogs are largely due to transmissible diseases. The organisms that produce such diseases enter the system in the feed and air. Muddy or dirty yards, crowded conditions and filthy floors or troughs are responsible for most of the cholera and swine plague. Young hogs are more susceptible than mature animals. Naturally they need better care. The pens and yards should not be neglected because there is a pasture. Keep them well drained and disinfected. Use whitewash freely about the houses and fences. Plow the unused lots and sow rape, oats or cowpeas. Spray the house, feeding floors and troughs thoroughly with a disinfectant every two or three weeks. Tar disinfectants are most convenient. They should be used in not less than a 3 per cent water solution. Spray or dip the hogs occasionally in a 1 per cent water solution. Young hogs should not be given crowded quarters. Provide a diet that will keep them healthy and help them to resist disease. Keeping the hogs under the best sanitary conditions and using every precaution to prevent infection from the outside are the most satisfactory methods of avoiding loss from transmissible diseases.—R. A. Craig, Purdue University Experiment Station.

#### Hog Notes.

Be careful in selecting your new boar.

Mature sows, bred to good boars, insure strong, healthy pigs.

Holding fat hogs for a higher market is oftentimes courting cholera.

Don't think that the hog has cholera just because he is off feed for a day.

Plenty of sunlight in the hog house from now until next June is necessary.

You may have a favorite strain, but don't stick to it until it has degenerated.

Give the hogen a rest. Move the hogs to another pen or to the pasture.

Keep the pens and yards sanitary, but don't stop with that. Keep the hog's digestion in prime order.

The construction of the pig trough may seem like a small thing, says Kimball's Dairy Farmer, but there's millions in it for the pigs.

### Novelties In A Nutshell

Christmas Presents That May Be Constructed by Clever Women—Mandarin Pincushion—Chinese Calendar

**H**IDDEN away in a nutshell are endless possibilities for original Christmas presents. The woman endowed with the fairy gift of imagination can make the cunningest contrivances with the aid of a handful of nuts of different species.

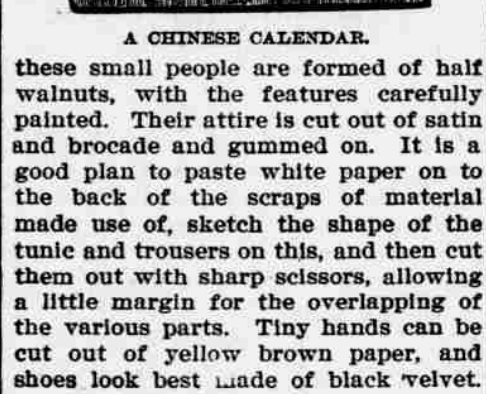
Doubtless many are familiar with brilliantly attired Chinese mandarins, doing duty as hanging plush cushions, the ornamental pins stuck round their large, flat, circular hats forming the excuse for their highly ornamental existence. These figures are formed entirely of peanuts, threaded on fine wire, with the exception of one large walnut, which does duty as a head. If a Mongolian cast of countenance is faithfully portrayed the result is excellent. Richly dressed in oriental satins and brocades, they are very smart and can be made additionally attractive by the use of embroidery, jewels, beads, fans and any other embellishments that may suggest themselves.

**Chinese Calendar.**  
One of the newest calendars for 1907 is decorated with a pair of Chinese figures. It is one of the "tear off" variety, and the bulky little packet of days is fastened in the right hand top corner of a narrow, upright card, measuring 12 by 5 inches, very neatly covered with art paper of a dark shade. This represents a box kite and is ornamented with silver tissue and devices cut out of tinsel. A gold cord depends from it, to which clings a terrified boy, who is evidently being borne rapidly aloft, in spite of the strenuous efforts of his companion to recall him to earth by tugging at his long black silk cue. The heads of

these small people are formed of half walnuts, with the features carefully painted. Their attire is cut out of satin and brocade and gummed on. It is a good plan to paste white paper on to the back of the scraps of material made use of, sketch the shape of the tunic and trousers on this, and then cut them out with sharp scissors, allowing a little margin for the overlapping of the various parts. Tiny hands can be cut out of yellow brown paper, and shoes look best made of black velvet.

#### Memorandum Tablet.

A red Indian is a new and effective design. Seated before his wigwam, smoking the "pipe of peace," he appears a very picturesque personage indeed in his scarlet blanket, edged with white borders, painted with Indian devices, over which fall his heavy plaits of black hair, interwoven with strands of silk and chains of colored beads. The hand grasping the quill pipe, and also the moccasins peeping beneath his fringed leather leggings, are formed of peanuts. His inscrutable countenance



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See Ziero for all kinds of grass seed, orchard, timothy and clover seed. 744

O. J. Blackledge arrived home Wednesday evening from Portland, where he had been to purchase a fresh stock of goods for his furniture store. 844

Have your eyes fitted by one who knows how—Matthews, the optician. 844

Starr's Bakery has secured the services of Dick Llewellyn, the wonderful bread maker. 894

The 150-acre farm of E. J. Buchanan on Beaver Creek was sold this week by Robinson & Stevenson to E. N. Hunter, of Winchester Idaho. The consideration was \$6000. Possession is to be given in a month. Mr. Hunter left Tuesday on the return to Idaho, where he will settle his affairs and return later with his family.

See the swell assortment of Xmas goods just arrived, at the Bazaar. 102

There is to be a lively game of basketball in OAC armory this evening, between the OAC star team and the Albany aggregation. This is the last contest of the sort that takes place before the local men leave on their tour of the states of Washington, Idaho, Utah, Montana and California, and a good crowd should turn out tonight to show the boys that the town has a keen interest in them. Game to be called at 7: 30

The missionary society of the Congregational church spent a delightful afternoon at the home of Mrs. Thomas Bell, Wednesday. About 50 ladies were present, among whom were Mrs. Eunice Luckey of Portland, state president of the society, who gave an address, and Mrs. Judge Lowell of Pendleton. A short program and tempting refreshments were the features. Mrs. Bell, who is a charming hostess, was assisted in receiving by Mrs. A. E. Wilkins and Mrs. Thomas Whitehorn.

#### Bellefountain Items.

Wilbur Starr was a Corvallis business visitor, Tuesday.

Word received from George Paul who recently went from here to California to be treated for cancer of the face, is to the effect that he has already had two cancers burned out of his lip, and it is feared this is not the end of the trouble.

Residents of the vicinity of Simpson's chapel are agitating the subject of a fruit and vegetable cannery for that place. This is a praiseworthy move and should be encouraged by every resident of the locality and all others whereabouts.

W. H. Dean, who has been seriously ill with erysipelas of the face, is improving.

The diphtheria scare has about blown over, and those who were afflicted have recovered. Among these were the two daughters of T. M. Coon.

There has been much trouble experienced here of late from the falling of the Bell telephone poles, which have become so decayed that they are constantly toppling over. In falling they have repeatedly caught on the Independent lines, cutting off connections between Bellefountain and Monroe, causing no end of annoyance and trouble. Three poles fell over Tuesday, and Bellefountain was practically out of the world for the time.

Road district No. 16, north of Monroe, is to hold a meeting Saturday to discuss the advisability of levying a two-mill road tax in that district. The measure will undoubtedly carry, as all seem to be in favor of it.

#### Amateur Essays.

Apròpos of extravagant education there is no more utter waste, whether in board schools or those of higher class, than essay writing by children. A poultry paper quotes a little boy's effort on that subject. "Geece is a nasty animal, for they will jump up your back and beat you with their feathers," writes this budding literary genius, and "the turkese is a large kind of hen." This may be an extreme instance, but it furnishes the text for an essay on "geece" of quite another kind.—London Sketch.

### CASTORIA

For Infants and Children.

The Kind You Have Always Bought

Bears the Signature of J. C. Watson