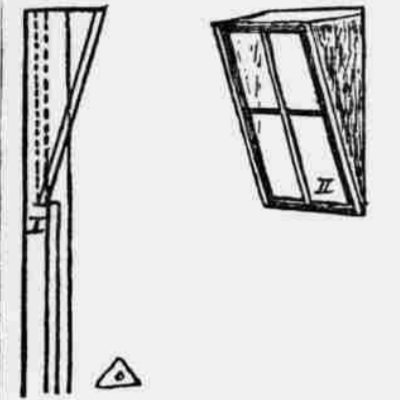




Dark interiors are unwholesome for man or beast. Numerous windows should be cut in barns previously dark, particularly in the south and east and a few in the west side. Use 9 by 13 half sash, hinged at the bottom and opening inward, as shown in the accompanying illustration. The triangular space between the sash and sides should be closed. The sash should be regulated by pins so that it can be opened to whatever extent desired. The top of the window should be near the ceiling of the stable. Be sure to keep the windows clean.

One way to remove the foul air is to construct round galvanized iron or wooden shafts. The latter should be made of tightly fitting matched boards. The interior opening of the shafts should be about a foot from the floor, with a flap near the ceiling to be opened and shut, as required. The exterior opening should be several feet above the highest point of the barn roof. The shaft should contain a damper to regulate the outgo. It is difficult without having a particular stable in mind to give specific directions concerning location or the number and the size of shafts. In general it may be said that one large flue will prove more effective than several small ones. This arrangement, however, must be governed somewhat by the form of the stable.

Allowing some 400 cubic feet of air space for each animal, a flue 2 by 2



FOR DAIRY BARN.

feet, inside measure, should change the air sufficiently often for a stable containing twenty cows. Whenever the construction allows it, the shaft should be located in the center of the stable. In long, narrow stables it should be opposite the greatest number of air inlets. It may be advisable to place a shaft at each end of the manure gutter.

It may be possible in some cases, if the windows are sufficient, to get along without the air shaft. Observation and experience alone will enable one to regulate these things.—F. H. Smith, Hatch Experiment Station.

Profit In Fancy Cheese.

The Camembert cheese can be produced at a profit, as at the present prices the product of 100 pounds of milk (fifty quarts) is about fifteen pounds, which should sell at from \$3 to \$7.50, according to Dr. Charles Thom of the experiment station at Storrs, Conn. The college is experimenting with this variety of cheese and is producing an article, as good as the imported, which can be made at a profit. The cream and the Neufchâtel cheese can also be produced profitably, and the production of these and other soft cheeses might be worth the attention of dairymen.

Getting Good Cows.

Don't try to put two different ideas under one hide. If you wish a dairy cow, breed and care should persistently and uninterruptedly suggest milk production. It is impossible to secure a good cow by going out into the world and crying, "Co, boss!" says a writer in American Cultivator. There are but two ways open—one that of buying and the other that of breeding. Buying is risky even for an experienced man. A woman who loves cows is often a better judge.

In breeding cows the farmer works in partnership with nature, and nature, having a great deal of time, is never in a hurry. So the man dies before the work is fully completed. Having got a good cow, the owner should strive to keep her in that condition. She is not a machine, like a gasoline engine, and she needs a good deal more care. She does well in the spring and summer because she has plenty of food and water. To do well in the fall and winter she must be kept comfortable and also have plenty of food and water.

Where Tuberculosis Breeds.

Tuberculosis does not find its victims among the scrub cows that browse the roadsides in summer and find shelter behind strawstacks in winter, nor among those who roam in wide, well watered pastures and are housed in barns through whose cracks the snows and winds of winter sift. It is among the herds whose winter quarters are basement dungeons, where little air and less sunlight find entrance, and those that are warmly housed and highly fed on rations calculated to force the secretion of milk to the utmost limit that the severe losses occur. It is particularly a disease of pampered animals. The highly bred animal is not essentially more susceptible; the fault is with the man who should be "ahead of the cow" instead of "behind her." There are extremes of the inhuman stables of the ignorant and the unnatural conditions maintained by the "scientific breeder." The latter class will be the first to realize their mistake and rectify it. The former will need a deal of education and demonstration in the line of sanitation.—Farming.

MAKING PORK QUICKLY.

Some Points on Hog Raising by an Indiana Breeder.

When my pigs are three weeks old I place a shallow trough near that of the mother, put a little ship stuff and skim milk in it, shell them a little soaked corn near by and in a short time they will learn to come and eat by themselves. At eight weeks old they will be able to feed themselves and in this way will receive no check at weaning.

From this time on the pigs should be pushed as rapidly as possible, for the sooner they will weigh 250 pounds the more profit there is in them.

Hog raising is seldom profitable unless you have plenty of good pasture. Blue grass makes a fine hog pasture in the early spring, and by the time this becomes woody and tough it is an excellent plan to have a field of red clover to turn them on. There is no better hog pasture than red clover, and it can easily be grown almost anywhere, especially in the corn growing sections. Alfalfa is also good.

I do not feed them all the corn they will eat while on clover, for if they get too much they will not eat enough clover. Of course clover will not last all season, but by the time the clover is gone they will be big fellows and ready for a full feed of corn, which is the cheapest feed for us to finish them with.

Fall litters of pigs are a little more expensive to raise on account of having no green pasture for them while they are young. But if they are pushed rapidly from farrowing time, Sept. 20, they will get large enough to stand the cold weather pretty well. I then give them a good feed of ship stuff and oilmeal, with ear corn. They follow the corn fed cattle and get the warm corn in the droppings. This sometimes turns an experiment in cattle feeding from a loss into a handsome profit on the corn fed.

In mild weather, when the snow is off, I turn them out in the pasture to get a bite of grass, but I always ring their noses first. Nothing is more worrisome than to see a drove of hogs plowing up a nice blue grass pasture.

Don't put a pig in a 10 by 12 pen with little or no shelter from sun or storms and feed him nothing but corn and dishwater and expect him to make you a profit. Feed him a balanced ration, give him plenty of exercise, a nice place to sleep, keep salt and ashes continually before him, let him have access to good water, keep the lice off him and there are few things that you can do that bring you more profit than the hog.—F. W. Copeland, Jefferson County, Ind., in Farm and Home.

Break the Colt Early.

While colts should have a warm shelter at night and during stormy weather, they should have a large yard in which to exercise. It pays to thoroughly break them young. Halter breaking should precede weaning. During the first winter they should be broken to harness. Early lessons are most lasting. With patience, and plenty of it, the most stubborn yearling may be made kind and docile, and these early lessons will influence him all his life. Very few horses properly broken when young ever become balky or fractious, and if they do it is always the fault of some man who has more temper than good sense.

THE SWINEHERD.

Cleanly conditions help to ward off cholera.

If the brood sow is too fat, the pigs are apt to lack vigor.

There is a better market for medium sized hogs than for those that are overgrown.

Do not forget to give the pigs some wood ashes, as they greatly assist in building the framework by furnishing the lime, as ashes are more than 40 per cent lime. It also helps to sweeten the stomach.

In selecting pigs to keep for breeders pick the sow with the longest body. Care and feed of the pig from birth to maturity are the secret of success and profit.

A good boar will add quality to your future porkers faster than anything else.

The boar is half the herd, but the other half is equally important.

The ill bred sow, like the ill bred cow, produces poor progeny.

During the first months of a pig's life growth and increased weight can be made cheaper or with less feed than at any time later on in life.—Farmers Advocate.

Give the brood sows warm, dry sleeping quarters. Be sure that there are no drafts in the pens. Hogs are subject to pneumonia if exposed to cold and drafts.

The sanitation of the piggery should be guarded as carefully as the sanitation of a hospital. Damp and ill ventilated sleeping quarters are fatal to pigs, and unless the owner will see to it that hogs always have a dry and well ventilated place to sleep he had much better keep out of the business.

Too heavy a feeding in the first few days to a strong sow in good condition induces scours in the piglets and perhaps graver disorders in the sow herself, says a Canadian breeder. Cornmeal should be used with caution during the first three weeks after farrowing. After that not much caution is needed. For the first three weeks after farrowing there is nothing better than middlings fed either in diluted skim milk or water. It is advisable to feed warm foods in all cases. Cold water direct from a well or spring should not be used for mixing the food. For the first two weeks we like to scald the meal into a thick porridge and then dilute with water or with milk and water.



SCUFFLE HOES.

They Are Specially Adapted For Work With Root Crops.

Root crops succeed best where the weather is moist and cool; hence their peculiar adaptation to western Oregon and western Washington. In these regions the yield of these crops is enormous, the ordinary yield being from twenty to thirty-five tons per acre, while reports of forty-five or fifty tons are not infrequent.

Mangel wurzels and rutabagas are usually grown in rows from twenty-



A SCUFFLE HOE. It is used in thinning and weeding. A very effective implement. The blade of this hoe may be made from an old saw blade.

two to thirty inches apart. Considerable hand weeding and hoeing between the hills and along the rows are usually necessary.

When sown in continuous rows, the thinning is largely done with a hoe, striking across the row. As much as possible of the subsequent cultivation is done with a horse cultivator.

Instead of the common and wheel hoes for thinning and weeding some prefer to use scuffle hoes. When in use the blade of such a hoe is in a horizontal position and is pushed and pulled just under the surface of the ground. The blade of the style shown in the cut is diamond shaped, about two inches wide in the middle and half an inch wide at each end and about eight inches long.—Byron Hunter, Bureau of Plant Industry.

The New Strawberry Bed.

For starting a strawberry bed the soil must be well prepared and the plants well selected and fresh and lively. Then proper culture must be given for the next four months.

Above all things, set only good plants. You may have bought plants at high prices and have the feeling that you cannot afford to lose them, yet if you find them wilted, showing no sign of vitality, the only thing is to throw them away, says Iowa Homestead.

It only adds to your expense and final disappointment to set out half dead plants. Better face the loss now and set only plants that show life.

Then the culture must be constant. Keep the soil loose and fine as a garden until August.

Let the planter be guided by those principles and then be prepared to mulch his beds when November comes, and he will be reasonably sure of a crop the second year.

Early Blight of Potato Plant.

Early blight of the potato is caused by the growth of the fungus Alternaria solani in the spots on the leaves. It appears before or about the time the tubers begin to form, or when anything else lowers the plant's vitality, and is indicated by grayish brown spots, with faint concentric circles like target marking on the leaves. These spots gradually become larger, and in ten days half of the leaf may be brown and withered and the rest of an unhealthy yellow color, though the stems may remain green, or the disease may progress more slowly. Of course the tubers stop growing as the leaf sur-



BLIGHT OF POTATO LEAVES.

face is destroyed, and the crop is cut short. This early death of the leaves is often so common that it is thought to be the natural ripening of the vines, but when sprayed vines live many weeks longer and produce a much larger crop the difference is readily seen.

The treatment is thorough spraying with bordeaux mixture. A mistake spray should be put on all parts of the vine, paris green being added to kill the insects.

The McCormack potato, now much grown in Maryland, seems decidedly resistant to this disease.—J. B. S. Norton.

WHIMS IN WILLS.

Curious Obligations Attached to Deeds of Property.

The eccentricity of men shows itself in no more extraordinary form than in obligations attached to deeds of property by which some whim of the seller is forced upon all future owners.

The Quakers who founded Philadelphia sometimes asserted themselves in this way after death. The owners of some of the valuable lots in that city are compelled to build houses of no more than two stories upon them. Upon others back buildings cannot be erected "lest God's air and sunlight be hindered unduly in their goings."

A plantation in Virginia was left by George Jordan, a lieutenant colonel under Washington, with the provision that "every owner thereof shall hold on Oct. 15 of each year a religious service in his house, where prayer shall be offered and a sermon preached in memory of my daughter Fortune, and this obligation shall hold good though a thousand generations shall pass."

A valuable property in Pennsylvania was bequeathed to a church on condition that the congregation each year should send a rose to the head of the family who gave it. Nearly two centuries have passed, but the rose was given last year to a descendant of the kindly though whimsical donor.

It was not an uncommon act in England during the middle ages to leave an estate encumbered with a dote, which was sometimes bestowed in a fantastic way. An heir was obliged to give fitches of bacon yearly to the married woman who never scolded her husband or so many loaves of bread or stacks of fagots to poor soldiers.

The owner of a house in Smithfield is said to have been compelled on the anniversary of a certain martyrdom to cover a gravestone in the churchyard of St. Bartholomew's with shining sixpences for the widows of the parish.

What He Missed.

An actor without funds managed in some way to get a second class ticket on a line of steamers running between Seattle and San Francisco. The voyage between these two points consumed the better part of three days, and in view of the fact that his finances were at a low ebb he solved the question in this way: The first day out he slept all day to keep from eating and remained up all night to keep from sleeping. The second day he took physical culture exercises. On the third day he could not stand the strain any longer and went down in the dining room and ordered the best meal on board the boat. While eating this meal he could see in his mind's eye a picture of a cell in the bastille in San Francisco. After finishing his meal he said to the waiter, "How much do I owe you?" "Nothing," replied the waiter. "Your meals were included in your ticket."

Saw His Finish.

Mrs. Brown awoke her husband in the dead of night with the startling information that she had just heard a burglar in the room below. "Now," she exclaimed excitedly, "he's lighting one of those cigars I gave you for your birthday. I heard him pick up the box and put it down again." Then John sat up and listened. By jove, Mary, you're right!" he answered. "He is! He's actually smoking one of those—er—er—those cigars." Then he nestled once more comfortably beneath the blankets. "Go to sleep again, Mary," he said complacently. "We'll find the poor wretch in the morning."

Was it Possible?

A minister who was waiting for a train was beguiling the time by talking to a half witted boy.

"I say, Jamie," said the minister, "were you ever at school?"

"Yes, sir, sure enough."

"And who had the honor to be your schoolmaster?"

"Maister Black, sir," replied Jamie.

"How strange! Why, Mr. Black was my schoolmaster also!"

For a moment Jamie was silent, then said, looking straight at the minister, "Mon, who'd ha' thoct old Black could ha' turned out two like us?"—London Standard.

Insomnia.

"Insomnia is caused by a surplus of blood in the brain, and the only way to cure it is to remove the cause," says a very wise doctor. "Long continued mental labor should, of course, be avoided. It keeps the blood vessels of the brain constantly filled, and when it is over they cannot contract. Tight clothing tends to throw the blood to the brain, and it should be avoided. The feet should be kept warm, since cold extremities interfere with circulation. Unless the malady results from moral causes a little care and common sense are all that is necessary to cure it."

LANDS ON ITS FEET.

The Fall of the Cat and the Curiosity of Scientists.

The curiosity of scientists knows no bounds. The French Academy of Sciences once had under examination and discussion the very interesting question, "Why does a cat always fall on its feet?" The old answer, "In order that it shall not break its back," did not serve in this investigation. Members of the academy were desirous of ascertaining not only the real reason, but the precise method by which a cat, when dropped feet upward, manages to turn over instantly in the air, with no object to brace itself against in order to procure the muscular reaction that would seem to be necessary for the revolution.

To assist its study the distinguished members of the academy had one of its scientists prepare a series of instantaneous photographs showing a cat in various stages of a fall from a considerable height. These photographs were obtained under the personal inspection of a committee, and several successful "drops," which the unfortunate cats must have been totally unable to account for, were necessary.

The photographs, it may be mentioned, failed to establish anything, except that the cat actually turned over in the air. As to how she did it, they afforded no clew. And as it was already known that she did it, the camera may be said to have contributed nothing toward the solution of the problem.

The committee next set itself about settling the matter by discussion. Several members presented their theories and compared notes. The laws of mechanics and geometry were applied to the known movements of the cat, with no other effect than to prove that a cat cannot possibly turn over in the air, which, however, it is well established that she does.

One academician maintained that the animal is able to displace its internal organs in such a way as to affect its center of gravity while in the air, causing it to turn, by a new center of weight, to one side and then, by another displacement, to throw the weight so that its back comes uppermost.

This claim, however, was but an unproved theory. Another man of science insisted that at the very instant when the cat is dropped, say, from the hands of the person who holds her, feet uppermost, she is able to make an impulsive movement, using the operator's hands to push against, as it were. At all events the cat begins to turn instantly upon being let go.

However, it has against it the fact that the cat turns successfully when there are no hands or other objects to push against—when, for instance, she is firmly held, back downward, by threads, which are cut at the right moment, allowing her to drop suddenly.—New York Times.

Historical Accuracy.

An American traveler visited Warwick castle during his tour of Europe. A tall young soldier took him through the historic house, pointing out each object of interest with a long stick.

"Ere, sir," he said in one of the state chambers, "ere is an ancient old portrait of Queen Bess. A fine work."

The American looked at the portrait, and there was a long, impressive silence. To break this silence more than for any other reason the visitor finally said:

"Queen Bess, eh? She was a pretty old lady when she died, wasn't she?"

The guide shook his head.

"Not pretty, sir, but very old," he said.

An Essential Article.

An artist was talking about Walter Appleton Clark, who died at the beginning of his artistic career. "And Clark," he said, "had a strong sense of humor. I remember going through a millionaire's stables with him one day. You know what a millionaire's stables nowadays are like—floors and walls of translucent white tiles, drinking fountains of marble, mahogany mangers, silver trimmings, and so forth and so on."

"Well, gentlemen," said the millionaire proudly, "is anything lacking?"

"I can think of nothing," said Clark, "except a sofa for each horse."

Easily Solved.

A country schoolmaster thus delivered himself:

"If a carpenter wants to cover a roof fifteen feet wide by thirty broad with boards five feet broad by twelve feet long, how many boards will he need?"

A new boy took up his hat and made for the door.

"Where are you going?" asked the master.

"To find a carpenter," replied the boy. "He ought to know that better than any of us fellers."—London Mail.

ALL OVER THE HOUSE.

Directions For Dry Cleaning Delicate Laces—Domestic Gossip.

Delicate or fine old laces may be dry cleaned at home if they have not been allowed to get too soiled by means of breadcrumbs or a mixture of equal parts of flour and magnesia. When using bread, rub the crumbs in with a soft cloth, changing crumbs and cloth directly they look soiled. In the method of using flour and magnesia rub the mixture well in with cloths and allow the lace to stay a few hours before shaking and brushing it. Pull into shape, tack down on a piece of white paper and leave under a weight.

Lace handkerchiefs may be finished successfully on the window pane. Pull into shape and lay on the glass, pressing out every wrinkle. They will dry smooth and ready for use.

Renovating Ostrich Plumes.

The whole secret in renovating feathers is starch, raw, not boiled, as that would act like glue. Take three tablespoonfuls of raw starch to one pint of cold water, into which put the feathers. After they have been washed and rinsed press in a dry cloth with the hands, squeezing as dry as possible, then hang in a draft to dry. When quite dry, shake thoroughly. As the starch flies off in a cloud every flue will rise, and the plume will be just as full and rich as when new. Hang over steam of a boiling kettle. Do not cur near the stem, as it gets too narrow that way. When curling have the forefinger of the left hand parallel with the stem.

To Remove Moles.

Moles must be very carefully touched. They are apt to turn into troublesome sores if tampered with. Mix equal parts of white vaseline and salicylic acid and apply to them at night. In a few days they will become a little sore and in time drop off. If very prominent, tie a bit of white silk thread tightly around close to the face. This takes all nourishment from the mole, and it will dry up and drop off. Do this only one at a time. Be careful not to pick them.

Hair Curling Lotion.

A very nice curling fluid is made of five-eighths of a dram carbonate of potash, a quarter dram powdered cochineal, half dram ammonia water, one ounce glycerin, three-quarters of an ounce rectified spirits, half a pint violet water and two drams violet extract. This should stand a week and then be filtered. The hair must be very clean and dry. Moisten with this lotion and put up on kids or ribbons.

Freckle Remover.

A lotion of one part good Jamaica rum to two parts lemon juice and a little glycerin is one recipe for removing freckles. Another one, which is prepared easily, requires one ounce of alum, one ounce of lemon juice and one pint of rose water. Rose water and lemon juice are excellent for removing tan—one spoonful of lemon juice in a half pint of rose water.

For Swollen Feet.

A bath that quickly relieves tired, swollen feet is to mix half an ounce of powdered alum, an ounce of sea salt and one of borax and put a teaspoonful in a foot tub. Soak the feet a quarter of an hour. Dry, pass a white ribbon under the foot, bring it over the instep and pass around the ankle. This prevents swelling and is a great relief.

Cleaning Chamois Skins.

To clean dirty chamois skins rub them with soft soap and allow them to stand for a couple of hours and then rub thoroughly till clean. Rinse them in a weak solution of warm water, soda and yellow soap and dry quickly. It is necessary to have a little soap in the rinse water, or the chamois will be stiff and wiry.

To Remove Mildew.

Put the things to be cleaned into a pail of warm water until they are completely soaked, then take out soaking wet and hang on clothes-line in sun and put a thick layer of common brown soap on, then thick layer of salt. Let hang until dry and repeat next day in sun. Be sure to use plenty of soap.

Scorched Woolens.

Treat a scorch precisely as you would any other stain. Sponge the stain with a mixture of equal parts of alcohol, ether and naphtha or benzine, changing the sponge several times. It is possible to remove it by washing with good suds made of lukewarm water and white soap. Wipe dry.

Emergency Stove Polish.

Soft coal soot makes an excellent stove polish. Put a quart of soot in some old vessel. Put a teaspoonful of molasses in a cupful of vinegar. Pour this mixture on the soot and stir until it is a paste. It can be put on nicely when the stove is warm or cold.