

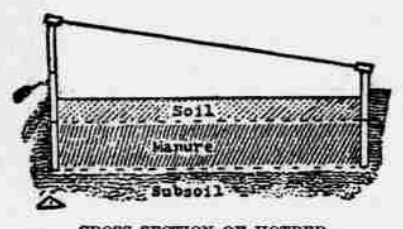
FARM & GARDEN

THE HOTBED.

Proper Location to Select—Method of Construction.

The hotbed should be located if possible in some sheltered place either on the south side of a building or on the southern or southeastern slope of a hill. The soil and subsoil where it is to stand should be naturally or artificially well drained. Hotbeds may be made of any reasonable length, but should correspond with the number of sash to be used. The common and very convenient size of sash is 3 by 6 feet. These may be purchased ready made or constructed at home, as is desired. Where the hotbed is to supply the wants of the family only three sash will be sufficient. This will provide for a hotbed 6 by 9 feet or fifty-four square feet in extent.

Before beginning the construction of the frame the soil should be excavated



CROSS SECTION OF HOTBED.

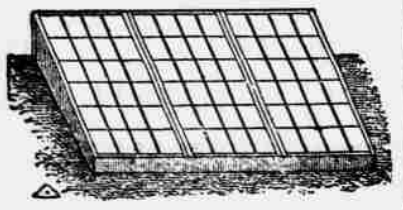
where it is to stand eighteen inches deep and two feet wider and longer than the outside measurements of the frame. Four by four inch pieces of wood may be used for posts, to which planks should be nailed on the sides and ends. The height of the frame should be about two feet in front and three feet on the back, eighteen inches of each side being below the surface of the ground. After the frame is put in place the earth should be firmly compacted around it, and it is well to have the surface of the soil slope away from the frame to provide for surface drainage.

About ten days or two weeks before it is desired to sow the seed in the hotbed the required amount of fresh horse manure, to which has been added one-third of its bulk of straw or leaves, should be heaped in a compact pile. If the manure is not uniformly wet, a little water may be added, but not enough to make it soggy. The manure will show signs of fermenting, generally known as heating, in a few days, when it should be forked over, thoroughly mixed and made into a compact heap again. After another interval of three or four days the manure is ready to be placed in the frame. As it is put in it should be compacted with a fork and by tramping. In order that the manure may be one foot deep after it has had time to settle it should be about fourteen or fifteen inches deep when first put in.

The best soil to use is a compost, such as is used in greenhouses and which consists of two-thirds sods and one-third manure well composted. Any good garden soil will do, however, if a composted soil is not available, says American Agriculturist. The depth of the soil should be about four or five inches.

The sash should be put in place at once after the dirt is put in the frame, but the seeds should not be sown for three or four days or until the temperature of the soil is at about 70 degrees. The sowing of the seed, thinning of the plants, stirring of the soil and general care should be about the same as for the same crops when sown in beds in the garden.

Watering and ventilating are the most particular operations. Water should not be applied except in the morning and on bright days. It should be at about the temperature of the



HOTBED OF THREE SASH.

soil. The purpose of ventilation is to assist in controlling the temperature and humidity of the air within the hotbed, and it should be governed by the conditions both outside and inside of the hotbed. A small opening will allow much heat to escape; therefore one sash pulled down two or three inches from the top or lifted and a stick placed under it will be sufficient ventilation for a three sashed hotbed on cold days.

Good Feed For Piglets.

Shorts, although as a rule much superior to bran for pigs, are not infrequently so coarse or contain so much fiber as to be very little better than bran for young pigs. Good shorts, however—that is, shorts containing a fairly liberal admixture of white material—are certainly a most excellent feed for pigs of all classes. Under such conditions they are among the very best single feeds for young ones just weaned. A slight admixture of oil meal improves it.

The Early Onions.

For the earliest supply of onions grown for the home table or bunching for market, sets are used, and these should be planted in rich soil. Seed may also be sown at the same time for plants to follow and maintain the supply. Sets of the white onions are put out as early as the ground can be worked in the spring three inches apart in rows one foot apart and will be large enough for pulling about the middle of June.

Points on Live Stock Feeding.

Some noted breeders were present at the annual meeting of the Ohio Live Stock association and delivered interesting addresses. Feeding live stock was treated in a clear and comprehensive manner by Dr. H. C. Miller of Sunbury. He is a practical farmer and has made the care and feeding of stock a specialty. He is a graduate of the Ohio Veterinary college and a well known farmers' institute lecturer.

There are no feeding stuffs that are wholly nitrogenous or wholly non-nitrogenous in their nature, and, as both carbohydrates and protein are needed for whatever purpose an animal is fed, it is well that this is so, he said. Clover hay contains both kinds of nutrients so properly balanced that they make an almost perfect food without anything else. But clover hay is not so economical a food as corn, and something must be added thereto to make up the deficiency in protein.

Bran, cottonseed meal and many other foods are valuable, but not so economical at present prices as corn and soy beans. As a rule, land devoted to soy beans should be inoculated. The crop costs about the same per acre as corn. No satisfactory method of harvesting has yet been devised.

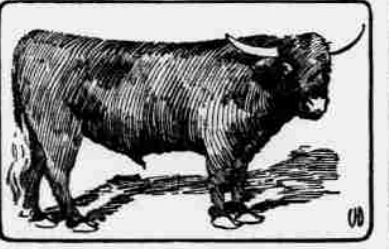
The production of hogs for market was ably presented by J. J. Ferguson, for some years instructor in animal husbandry in the Michigan Agricultural college, but now in charge of the animal food department of a Chicago packing firm. He spoke briefly of the different breeds of swine and mentioned the following as among the more desirable characteristics of a good breed: First, the ability to make a good use of a large amount of food; second, an aptitude or tendency to mature early; third, to show when slaughtered a small amount of offal or waste in proportion to live weight. The modern improved breed should show an average gain of not less than one pound a day for the first eight months of its life.

Feeding sheep for the international live stock exhibition was discussed by R. L. Stone of Stonington, Ill. He is one of the most prominent breeders and successful exhibitors of sheep in this country. He had prepared card-boards for the great exhibition at Chicago and spoke from experience. He fed seventy-five or more lambs each of Oxford Down, Southdown and Shropshire together, treating all alike. The principal feed was corn and oats.

He began by feeding one bushel of corn a day and gradually increased it to five bushels. With the five bushels of corn he mixed two bushels of oats and supplemented this grain ration by clover, cabbage, mangolds and carrots. The Oxford Downs were the heaviest throughout, but the Southdowns made the best showing at the butcher's block. With his method of feeding Mr. Stone thinks it possible to make a good average lot of lambs increase forty pounds each in ninety days.

Champion Devon Bull.

The western champion Devon bull shown in the illustration from Orange Judd Farmer is owned by an Illinois breeder. This breed of cattle are ex-



A DEVON BULL.

cellent animals—fatten readily, mature early and in more eastern sections of the country are prime favorites. They are especially desirable where steers are to be used as work animals.

Feeding For Bacon.

There seems to be an opinion that the pigs designed for bacon must be fed along slowly until they have reached the required weights. This is a mistake, says a writer in National Stockman and Farmer. It should be borne in mind that young animals develop muscle while growing and not after. Therefore in order to secure the best results they must be fed with the object of rapid growth in view from start to finish. It is a good plan to encourage them to eat when three weeks old and feed them scalded middlings mixed in with milk while yet warm in a little trough where they can get to it and not be interfered with by larger animals. Clean the trough each time before putting in the next feeding of the mixture. Keep the appetite good by giving only as much as they can eat up clean quickly. As they grow along coarser feeds can be mixed in, such as corn and oats ground together and the hulls sifted out.

Pasturing The Ewes.

The date of turning the ewes on to pasture is a period needing care and judgment. It is safest to effect this change gradually by turning to pasture for a few hours daily and back to shelter at night, where a full ration of dry feed should await the ewes, writes a breeder in Country Gentleman. In this way may be avoided injury to the digestive system of the lambs, often resulting in death, which is caused by too great a supply of rich milk through the ewes' feeding heavily on new pastures. While until the ewe's system has become used to the change from dry feed to pasture it will be beneficial to supply a little dry feed, both hay and grain, generally, if the pasture is at all good, it will supply sufficient nutriment to the ewes, and it will not be necessary to feed any grain.

LEFT HANDED BARBERS.

What One of the Tonsorial Craft Has to Say About Them.

"Superstitious? I should say 'yes.' They won't admit it to any one except members of the craft, but barbers are the most superstitious people in the world."

The man in charge of the second chair at one of the large hotel shops stropped his razor and loquaciously continued:

"You see that new man down at the end chair? He just came to work here this morning, and he'll have a nice large can tied to his coat tonight. Why? Because he's left handed. If he remained here every barber in the shop would quit before the week was out."

"A left handed barber is a hoodoo to any shop, and there's no getting away from it. You may think that's only a prejudice that barbers have for left handed knights of the razor, but it's a well grounded superstition, as old as the trade itself."

"We'd be apt to have all kinds of hard luck if that fellow stayed here any length of time. I once worked in a New York shop where there was a left handed barber, and almost every day an accident would happen to some of the others. We told the proprietor where the trouble lay, but as he was not a barber he could not understand what difference it made whether a man shaved with his right or left hand."

"One day a runaway horse plunged through the plate glass window, and another day a mad dog ran into the shop, followed by a policeman, who killed the beast under the left handed man's chair. Without any apparent reason the hot water faucets would get cold as ice and the razors would refuse to work properly. Customers who for years had been in the habit of getting shaved three or four times a week stopped coming, and it was all due to that left handed barber. During all the while he was there not one of us won a bet on policy, although the porter used to dream some of the best numbers I ever saw. This fellow I speak of had red hair, and that, of course, made it worse. We finally induced the boss to fire him, and just as soon as he was gone things began to get good again."

"Now, this fellow on the end, who drifted in this morning, looks to be a pretty good barber, but just as soon as the boss saw him strop a razor with his left 'mitt' it was all off for Julius. In most shops before a new man is hired he is asked whether he is right or left handed."

"Left handed men who learn the trade get on to this after awhile, and then they switch to the right hand—that is, if they can make good with the right. I'm scared to death that somebody is going to get killed around here before 8 o'clock tonight, when his 'nibs' will take off his coat and take it away with him."

"Another superstition among barbers is that they don't want to shave the first customer that comes in on Monday morning. That's a sure sign of poor business all week for the unlucky barber. Of course somebody has got to shave the first man in, but you don't see the barbers rushing madly up to their chairs and beckoning to the customer. You'll see one of them go for a drink of water, another is too busy reading the sporting page to look up, and the others are all doing something that occupies their time. Whatever chair the customer climbs into the barber who runs it is hoodooed for the week."

"Another peculiarity about barbers is that one of the craft can tell a fellow tradesman by shaving him, although he may never have seen the man before. The way a barber lies in a chair when he is getting shaved and the way he unconsciously assists the man with the razor tip him off every time. He will turn his head from one side to the other in a different way than other men who are not barbers, and when the razor is on his neck he'll raise his chin in a way that cannot be counterfeited. I never missed out on calling the turn on a barber in my life."—Chicago Record-Herald.

Ugly and Knew It.

A gentleman once said to Lord North, "Pray, my lord, who is that extremely ugly woman sitting over there?"

"That's my youngest sister," said his lordship.

"Good gracious!" said the gentleman. "I don't mean her. I mean the next."

"That is my eldest sister," replied the nobleman.

"I protest!" cried the unhappy gentleman. "I don't mean her, but the third."

"That is my wife," said Lord North.

"The mischief!" ejaculated the poor fellow.

"You may well say that," said Lord North, "for she is ugly. But console yourself, my dear sir. We are the ugliest family in England."—Golden Penny.

READY FOR EMERGENCIES.

Veterinary Work the Dairyman Should Be Able to Do.

If a man is going to raise animals and keep animals he needs to know something about the ailments of animals. He must not think he is a veterinary simply because he has this knowledge and a few instruments. He won't be within five hundred miles of being one, but he may be enabled to save himself a lot of money loss in live stock yearly by owning the instruments I will briefly mention, writes Dr. C. D. Smead in Tribune Farmer.

A horse or cow may be bloated. If taken in time, by simply using a rectal syringe made for horses and cattle, a valuable animal's life may be saved. If the veterinary is depended upon, it would be dead long before the veterinary could be had.

A cow may have an attack of parturient apoplexy (milk fever) and die before a veterinary could be had, when if the farmer has an air syringe (milk fever device) he can use it himself just as well as the veterinary and save his cow and the veterinary bills also.

Cows will occasionally injure a quarter of an udder and some thick or stringy milk may be the result. Unless this can be milked out or got out of the udder in some way the result will be the loss of the quarter, either by garget or caseous hardening of the quarter. Had the farmer a modern test syringe to wash out the milk cistern of the udder with warm water, with some common baking soda dissolved in it, the quarter could have been saved.

A cow may have clover bloat and die before the veterinary surgeon can get there, when if the farmer had had a trocar he could have saved her life. A hard milking cow in many instances can be made to milk easily by a little slit made with a proper bistoury. Many a cow with an injured or lacerated teat loses it simply because the farmer has not a milk tube and a knowledge of how to use it.

The treatment of parturient apoplexy, or tapping a cow that is bloated, is no more of a skillful operation than the hoeing of a hill of cucumbers, and you might with just as much sense send to town for a man to come and hoe your peas and cucumbers simply because you had no garden hoe as to send for a veterinary to tap a bloated cow or treat a cow for parturient apoplexy simply because you had no tools. The whole kit can be bought for \$12 and, I think, \$10, and that is about what a veterinary has to charge you for two visits if he has to go five miles to make them.

Care of the Separator.

In order to have the perfect motion of the separator bowl the machine must be set level and be kept clean and well oiled. The oil should be thin or light so it will not gum the wearing parts. A heavy oil will make the machine run hard and will gum quickly on small high speed bearings. All the bearings of the machine should be frequently flushed with coal oil. It is well to make a run about once in two or three weeks, using coal oil on all the bearings. This keeps the parts free from gum and washes out grit or sand that may have blown into them. It is an excellent plan to have a cover of close woven cloth or oiled cloth that can be kept over the machine while it is not in operation. This will keep out dust and will add materially to the lasting powers of the machine. The separator should be set upon a good solid floor so that it will not move about as the operator turns the crank.—Professor E. H. Webster.

THE BUTTERMAKER

If you are making a choice lot of butter (and you should make none other) it will pay you well to mold it into pound prints and wrap with parchment paper bearing a label on which is printed the name of the brand, together with the name and address of the maker.

Low Speed Losses Butter Fat.

A test was made of running milk through the separator at about three-fourths of the listed speed at the Kansas experiment station. It appeared from the result of this test that the amount of butter fat left in the skim milk is materially increased by lowering the speed of the separator. There is considerably more loss than when separators are run at their listed speed.

Temperature For Cream.

The temperature at which cream should be churned cannot be stated with accuracy because much depends upon the cream itself. Cream from the milk of different cows cannot always be churned at the same temperature. Different feeds have something to do with it. The period of location must be considered. The proper temperature will be all the way from 50 to 65 or 66 degrees, but the lowest temperature at which the cream will churn is best, for it will make better butter than a higher temperature.

Cleanliness, Always Cleanliness.

A poorly washed strainer, milk pans or any utensil used about milk affects the flavor of butter. Cleanliness is the most important adjunct to the dairy business. When everything is kept clean, there is little complaint of bacteria or trouble of any other kind.

What Makes Good Butter.

Good butter is not the result of any one particular point of superior excellence, but a combination of all the details. In methods of management conditions vary so much that no one set of rules will be applicable in all cases. It is very important to do what is necessary to be done at the right time and in the right manner.

FOR THE LITTLE ONES.

The Game of Club Will Furnish a Merry Half Hour.

This is a game that causes much amusement to a company of children, and even grownups may join in.

All the players, with the exception of two, leave the room. One of the outside party is then called in and told that a new club has been formed and his name enrolled, but that he cannot be formally admitted unless he can guess the name of the club from the movements of the two members who have remained in the room.

The candidate for admission is then offered a chair, and everything he says and everything he does is mimicked by the other two. Sometimes the new member guesses at once, but when unable to do this it is very funny to watch the effect that the copying of his every movement has upon him, especially when six or seven have been admitted.

When the name of the club has been guessed, another candidate is invited in, and the same performance takes place.

Dot's Composition on Boys.

"Boys are men that have not got as big as their papas, and girls are women that will be ladies by and by. When God looked at Adam, he said to himself, 'Well, I think I can do better if I try again,' and he made Eve. Boys are a trouble. They wear out everything but soap. If I had my way, the world would be girls and the rest dolls. My papa is so nice that I think he must have been a little girl when he was a little boy. Man was made, and on the seventh day he rested. Woman was made, and she has never rested since."

The Black Hole of Calcutta.

The Black Hole of Calcutta is a small dungeon in Fort William, Calcutta. Surajah Dowlah, the Indian ruler of Bengal, took Calcutta in the year 1756 and put the garrison of 146 men into this dungeon, which had only two small windows on one side, covered with iron bars. The prisoners suffered torture during the night, for there was not enough air for them to breathe, and in the morning only twenty-three of them were found alive. This act has passed into history as one of the cruellest on record.

English Army Horses.

Every horse in the English army is numbered and has its own little record kept for itself. The number is branded upon the horse's hind feet—the thousands on the near hind foot and the units, tens and hundreds on the off hind foot. Thus the horse whose number is, say, 8354 will have an 8 on his left hind foot and 354 on the right. On what is called his "veterinary history sheet" everything about the horse will from time to time be written.

What the Little Jap Wrote.

A teacher in Japan copied these English sentences just as they were written by Japanese pupils:

"The toothache is a disgustable disease."

"Though the toothache is a little disease, it disturbs the soul to a great degree."

"The good man is bold as a lion, but the bad man flew even when no man drive him."

"My dog is very bark."

"Come here, my amiable cat."

Made Over Nursery Rhyme.



Peter had a little lamb; His fleece was black as jet, And everywhere that Peter went That lamb would go, you bet. —Washington Post.

Fishing For Sheep.

When sheep were introduced into Cornwall, England, a flock of them ran into the sea and were floated by their wool. Some fishermen saw them and, thinking them to be a new species of fish, made haste to try to catch them with hooks and nets. Next morning they brought home a catch whose value was greater than any load their boats had ever carried.

Origin of the Saddle.

Saddles with trees came into use in the fourth century, and stirrups were adopted about three centuries later. The early Greeks and Romans rode bareback, and when Nero gave out to his cavalymen fancy coverings the hardy German tribes and horsemen were much amused.

A Lazy Liver

May be only a tired liver, or a starved liver. It would be a stupid as well as a savage thing to beat a weary or starved man because he lagged in his work. So in treating the lagging, torpid liver it is a great mistake to lash it with strong drastic drugs. A torpid liver is but an indication of an ill-nourished, enfeebled body whose organs are weary with over work. Start with the stomach and allied organs of digestion and nutrition. Put them in working order and see how quickly your liver will become active. Dr. Pierce's Golden Medical Discovery has made many marvelous cures of "liver trouble" by its wonderful control of the organs of digestion and nutrition. It restores the normal activity of the stomach, increases the secretions of the blood-making glands, cleanses the system from poisonous accumulations, and so relieves the liver of the burdens imposed upon it by the defection of other organs.

If you have bitter or bad taste in the morning, poor or variable appetite, coated tongue, foul breath, constipated or irregular bowels, feel weak, easily tired, dependent, frequent headaches, pain in the back, "small of back," yawning or distressed feeling in stomach, perhaps nausea, "rising" in throat after eating, and kindred symptoms of weak stomach and torpid liver, no medicine will relieve you more promptly or cure you more permanently than Dr. Pierce's Golden Medical Discovery. Perhaps only a part of the above symptoms will be present at one time and yet point to torpid liver or biliousness and weak stomach. Avoid all hot bread and biscuits, griddle cakes and other indigestible food and take the "Golden Medical Discovery" regularly and stick to its use until you are vigorous and strong.

The "Discovery" is non-secret, non-alcoholic, is a specific extract of native medicinal roots with a full list of its ingredients printed on each bottle-wrapper and attested under oath. Its ingredients are endorsed and extolled by the most eminent medical writers of the age and are recommended to cure the diseases for which it is advised.

Don't accept a substitute of unknown composition for this non-secret medicine of known composition.

STORIES OF LINCOLN.

Side Lights on the Character of the Martyr President.

"I have read several Lincoln anniversary speeches," said Mr. Charles Frederick, "and have been struck with the statement contained in some of them to the effect that Mr. Lincoln seldom got mad and that when he did get mad he did not allow himself to get very mad. If these speakers spoke from their personal experience, it is all right, but my personal experience with him one night satisfied me he could get up a terribly good sized case of mad at times."

"I was a boy at the time and was a messenger for the old American Telegraph company, which in after years was absorbed by the present Western Union Telegraph. For several days there had been a number of telegrams for the president from army officers, and among them I remember two or three from General McClellan. I don't remember now why they did not come over the military telegraph lines. Well, one night I started over to the White House with a telegram that I knew came from General McClellan. It was for the president.

"In those days there was always a guard of soldiers stationed at the two avenue gates, as also at the other gates, but messenger boys were generally well known, and they were admitted day or night without any question, at least to the front door, where another soldier guard was also stationed. There was always an officer about the door, who received for telegrams. This night, however, I saw Mr. Lincoln coming toward the outer gate, and I thought I would personally hand him the telegram, which I did. He smiled pleasantly enough as he opened it, but a change suddenly came over him.

"Have you the other telegrams?" he demanded of me. I replied that I had but the one, though I informed him that I knew there had been one or two others that day from General McClellan.

"That is what he says," added the president, "and what annoys me is that I have not received them."

"Then, turning to the sentry, he said: 'Send up to the door for the officer in charge and tell him that when telegrams come here addressed to me they should and must be delivered to me. Tell him also,' and by this time the president was very mad, 'that if he sends any more of my telegrams over to Mr. Stanton's house I'll drive him away from here. Mr. Stanton has enough telegrams of his own and should not have mine.'

"Through I was but a boy," said Mr. Frederick, "I could see that Mr. Lincoln was mad all the way through and that, for the moment, at least, he was displeased with his war minister, Secretary Stanton, and that he intended exactly what he said. The president, then directing himself to me, continued: 'Boy, tell your folks that I must have my telegrams and that if these soldiers about the door interfere any more I'll drive every one of them away. I don't want them and never did want them about the place.'"

Good plan to sift the salt you use in the butter. Sometimes there will be little chunks in it, and these are apt to get into the butter whole. Sifting breaks these all up fine.

Don't forget that the milk fed calf needs water to drink.

Regularity is inexpensive. Use lots of it in feeding and milking.

Cultivate your smellers. Never leave a churn after washing until it smells as fresh as the morning dew.

The cow that fattens easily is seldom a good milker. The function of the dairy cow is to turn feed into milk, not meat.

If you have a good dairy bull it will pay you to moderate in charging for his services. You may be able to pick up some of his heifer calves from your neighbor's good milkers.