HOGOLOGY

PART I

Suggestions and Better Methods of Profitably Bringing Mr. Pig From Farrowing to Market, Moulded Into a Readable Story

WRITTEN BY

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PART II

One Hundred and One Fully Illustrated Descriptions of Hog-Lot Devices and Accessories That Are in Practical Use on Different Hog Farms in the United States

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PART I

THE HOG

From Breeding Time
to the Butcher's Knife

Introduction

There is no meat-making animal on the American farm that matures so quickly or multiplies so rapidly as the hog. There is no meat-producing business into which one can embark so cheaply and which brings returns so quickly and continuously as the growing of hogs. There is no branch of livestock farming that offers such inducements at the present time as does that of producing pork.

The best posted statisticians are authority for the statement that never again in the history of the world will pork be cheap. It is the poor man's meat, and as the martyred Lincoln said: "God made more of them than any other class." We have been living from hand to mouth as concerns our meat, and the man who increases the supply of pork not only builds a business and establishes an income for himself and those dependent upon him, but at the same time is a benefactor to his race.

Not all the vexatious and ever-increasing questions about how to grow pork are answered in this little volume, but recorded here in a story, a season's work with hogs, are the experiences of many successful hog men, not in their own words, but combined into a brief 12 months, as the writer saw them worked out on the more than 500 hog farms which he has visited in the past quarter of a century. If the perusal of this little book will answer only one question, or help only one of the many thousand men in pork-growing, the writer will feel more than repaid for transcribing these experiences of successful pork growers to the printed pages of Part I of this book.

ROBT. J. EVANS.

A Vast Industry

We believe there are but few men connected with the hog-growing industry of the United States who realize its vast importance and what it represents, not only in dollars and cents, but in the comparative values to the millions of people in foreign countries as well as in our own that depend upon the American hog products for their consumption. Very close to one-half of the total value in dollars and cents of the meat and meat products slaughtered in the abattoirs of the United States, is derived from the hog. Three-fourths of the world's international trade in pork and pork products originates in normal times in this great country of ours and war time greatly increases this per cent. The department of agriculture is authority for the statement that if we expect to provide meat to foreign peoples, as well as our own, every farmer must put forth his best effort to produce more and better hogs. (The government states at this writing that the United States is exporting two hundred millions pounds of pork, per month, to Europe and sixty million pounds of beef.)

For years this country depended upon the cattle range for its meat, but these ranges have passed away and pork, from now on, will be the main meat consumed by the working class of this nation as well as of the nations of the earth.

When we consider that this animal, the lard hog of today, represented by three or four outstanding breeds, has been perfected and is American-bred and American-improved and an American institution pure and simple, we can realize how much the hog interest means to the people of this nation.

More Important Than Cattle Industry

Livestock men and livestock interests generally are wont to give what we feel is undue consideration to the cattle business and the cattle interests, when the dollars invested and the amount realized from the sale of the two at the market show such a little difference. Hog-growing in the majority of cases has made cattle feeding pay its way. Hog marketing has paid off the mortgage, has increased the value of the land, paid the farms' running expenses and paid for untold necessities and luxuries for the American people. The most productive farms in this land of ours today are the farms where a continued system of hog feeding has been carried on year after year. The hog returns more fertilizer to the land than any other meat-producing animal on the farm, and run-down farms and lands with thin soil can be built up and be made productive through hog-growing operations, the owner securing his profit from the hogs during the building process.

As it became necessary to till our fields with up-to-date machinery, and farm more economically on account of the ever-increasing price of land, so it has become necessary for us to use a modern machine to grow our pork. Such an "implement" is the purebred hog, and he has been, through many generations and many decades, bred up and improved until he can convert more grain and grass into pounds of pork than the common hog of yesterday. The improved hog is not an animal that can live on less, but one that can consume more and convert a greater per cent of that increased quantity into the commercial article, pork. The hog makes greater gains per hundred pounds of concentrates than any other domestic animal. He has no rival in consuming by-products, nor in his fat-storing characteristics, and these

qualities have been increased in the improved hog.

Many Ways for Profit

There are so many ways in which profit has been and is being made with hogs on the farms, ranches and plantations of our country, that the great wonder is and has been for years why any farmer, whether he be farming only a forty-acre farm or one embracing many sections, should leave out of his plans and farming operations an animal that makes good in so many ways. Hogs fit into the modern scheme of farming on every farm and from every standpoint and are the best animal for the two-fold purpose of raising meat and money. Hog growing requires less preparation, less expense, less equipment and less capital than any other branch of livestock raising, and the capital can be turned into cash more often in the year than in any other line of farming. As a follower of a bunch of feeding cattle he has often made the only profit the cattle feeders realized and has made it possible for these feeders to continue their business year after year, when the price at the market and the price of feed at the feeding boxes were all out of proportion. While we believe that a man can take hogs at the present prices of feed (hogs at 17 and ground feed ranging from $40 to $55 per ton) and market and make money out of the transaction, yet in order to profit from hog growing year in and year out, it is necessary that the hog-grower reduce the cost of production as much as possible by permanent pasture and continuous forage crops. The hog is not a forage animal, but pork produced by forage and concentrate supplements is the most profitable the grower can market.

Hogs and Good Farming Go Hand in Hand

There are several questions to be considered when one contemplates entering into the hog business. Location, breed, size of herd to begin with; whether we shall aim to produce breeding stock or grow entirely for the pork barrel. A combination of the two, selling a few good boars and choice gilts to farmers and feeders, and feeding the others out for the market, having first selected our breeding stock for the coming year, offers the best and quickest and surest money income from hogs. Nine-tenths of the men who are known as purebred swine breeders throughout the United States would have more money at the end of each year if they had never attempted public sales of seed stock, but put their time on the marketing proposition. Hog builders, like poets are born, not made, and it falls to the fortune of but comparatively few men to have inherited the requisites of a constructive breeder of live stock. Such work must fall to these few and it is a pioneer's work. It is less likely to result in an accumulated competence than if the less risky plan of feeding for market is followed. But there is a fascination about the work of breed building that holds the breeder to his tedious task, and many have persisted in their work, and failed in receiving remuneration commensurate with the cost of continuing, but felt a pride in the far-reaching results that they knew would come from even slight improvement of the breed with which their life work seemed to be aligned. We believe many men have gone into the business with absolutely no preparation, not any intelligent thought. This is as foolish as spending too much money for buildings and seed stock. There is a happy medium in this as in other enterprises and the wise man adopts this middle path, building and buying only the necessary equipments and seed stock, paying high prices if need be for properly bred animals.

In these days of intensive living and intensive production, the man who

spends his time and money in producing pork from scrub hogs is worse than a farmer who would use the crooked stick plow of the Oriental farmer on his modern farm in the corn belt. Cross-breeding of two or more breeds of pure bred hogs has been said to produce better feeders than pure breds of any certain breed, but there are no well founded facts or figures on which to base these assertions.

The pure bred hog of a particular breed comes to the market in carloads of even color, conformation and common characteristics. These are the loads that bring the top prices. The smoothness, color and conformation have been stamped upon the pure bred and bred into his blood lines until he reproduces regularly and evenly and from such breeding stock comes the high priced hogs of each day's receipts at the market centers if they come to the lots properly bred and developed.

Whether you engage in the business for pork growing alone, a business which is probably the most profitable on the least expensive investment, and which has netted the farmers of our country more dollars than any one branch of live stock business known today, or whether you enter the profession of supplying seed stock to the farmer and feeder, the next largest branch of the hog business, you are sure of more and steadier profit than from any of your farm operations, investment, time and labor considered. While the two branches of the hog business mentioned above, pork growing and supplying the seed stock represent more than 90% of those engaged in the hog business, yet there is a small percent of hog growers who are not only making good profit, but are enjoying a bounteous income from the sale of home-grown and home-cured meats, home-made sausage, and other products. The advantages of this latter method of money from hogs is the steady returns, quickness of profit, and the ability to turn small capital several times a year. While only a few locations are adapted to carrying on large enterprises of this latter method of turning pork to profit, there is scarcely a county in the United States but which some part can be readily adapted to producing pork.

Small Capital Sometimes a Blessing

There are a good many ways of going into the hog business, all of them easy enough if sufficient capital is at hand, but the great army of people who will do the best with hogs and make the most money, are short on the one thing that makes beginning easy—capital. This might seem a serious handicap, but it usually proves a blessing. One will go in by degrees, will not start with so many head as if capital were ready at hand. Thus experience is gained as you go along and you also gain confidence and learn the ways of buying and the right kind to buy and you have less to undo.

If you start in the spring two or three brood sows due to farrow in late March or April producing litters from good big boned, well bred boars, will be enough foundation, but if the fall of the year is chosen, a half dozen gilts eight or nine months old of same general type, and a boar, either a pig or a yearling. A good thrifty March pig will be old enough to mate to these in November, for the next spring farrow. Don't get the notion that you can't start with a less number than mentioned. One good sow in the spring or a trio in fall, two gilts and a boar, might be enough. This will depend on your preparation for feeding and housing.

Care Thru Gestation Period

In buying bred sows be sure to find out how they have been fed and cared for; be sure that they are not too fat and that they have not been fatted on

too much corn or heating feed. Get them from sires and dams of good size and good breeding. A "pedigreed scrub" is a curse to any man in the hog business. After these sows reach your place give them proper care and housing. It is a trying time for the dam for she is not only laying in a supply of flesh to help furnish milk to her future litter, but is building the frame of the pigs in that litter. Good concentrated feed, plenty of exercise, pure water is necessary and the extra care will be more than doubly repaid in the coming litter. Too much corn makes weak litters and unsatisfactory results. Separated milk is a very good feed for the sow during gestation as it will encourage milk secretion. The best rations for the sow during the winter months is slop made of equal parts of ground oats and wheat middlings and a small quantity of corn ground with the other two grains. If the weather remains severe for any length of time the corn can be increased for it will assist in keeping up the heat. Constipation must be avoided. It is well to have the feeding pen a good ways from the sleeping quarters so the sows will get exercise in going back and forth. As farrowing time approaches keep the bowels regular by using a half pound of oil meal daily.

Warm quarters in which the sows can farrow must be provided. Later on an individual cot such as shown elsewhere in this book is all that is needed, but at farrowing time, especially in our colder climates, a box stall in the barn or a community house with farrowing pens is needed. Look out for cold draughts on the young pigs. It takes a mighty little sudden change to knock Mr. Pig out in his first day or so.

At least twenty-four hours prior to farrowing time the sow's feed must be cut down to a little thin slop. Give only fresh water for at least two days after farrowing. Many good sows and money-making litters have been ruined by the false notion that the sow needs feed as soon as she is done farrowing. Nature has been preparing for this period and has stored up feed in her system in just such a form as is needed by the mother and offspring.

Attention at Farrowing Time

How essential it is to buy from absolutely reliable breeders will be thoroughly realized by the new hog man if sows farrow before time designated by the seller. You may be off your guard and the whole litter be lost. Continual attention at farrowing time pays a hundred fold. If the weather is very chilly, take each pig away from the sow as soon as farrowed and put in a basket or bucket, having placed in the bottom of it a jug of warm water or a hot brick with a piece of blanket over it. Keep them here until the sow is through farrowing and then let them get their first meal. If you can get them filled with the first draught of the life-sustaining fluid of the young mother, your battle is half won. Put them back in the basket especially if the weather stays cold or the sow is restless. Let them suckle every two hours night and day. You may need your sleep, but if you want full profits out of the sow and litter you can well afford to invest in an alarm clock and attend to your duties as wet nurse bi-hourly the first and second nights at least.

Wherever you have the sow farrow provide good bedding, not a big lot of straw, but pine shavings if possible or chopped straw. If too much bedding is given the pigs get lost and the sow will trample them. Also provide stall or pen with guards, 2 by 4s, supported eight inches from the floor of farrowing pen and six or eight inches from the wall. Instead of laying against the wall of the pen and squeezing the life out of her offspring, her body is held away from the wall

by these 2 by 4s and the youngest can get behind the guard, and you will see them crawling around as lively as ever towards the "dinner side" of the mother.

Close watch of the sow's action will be sufficient indication as to when you can safely trust her with the entire care of her new family and it is some care. A doctor, a nurse, and the whole family (no matter how many it contains) and often nearly all the neighbor's family are necessary to get one little human baby started half right on his journey through life, yet we expect the dumb brute of a sow to care for from eight to a dozen without half the attention of one person. If she fails we not only curse her, but the whole porcine race. (Don't come to the conclusion from this statement that I am comparing the value of one little helpless new human to that of a new family of pigs. Nothing of the kind. But if we are going to do a thing, let's give it our best attention.)

Caution Needed After Sow Has Farrowed

Trouble after farrowing time with the sow or with the litter comes from one or more of three things: wet bedding, too much feed and cold draughts. The first will make sore teats, put the sow out of condition, chill her, chill the pigs and often makes the tails of the pigs sore. Over feed causes fever in the sow's udder and gives the pigs scours, a disease often hard to check and a complaint that often undoes all you have done. Cold draughts start pneumonia, a disease easily contracted by the hog. Don't get the sow into full feed until the pigs are at least a week old, ten days is better. Keep her on thin middling slop, possibly an ear of corn and some pure water, increasing the consistency of the slop each day, until at the end of the period you have her relishing a full meal of thick slop.

At birth, pigs have four very sharp teeth which often give the dam and their litter mates a lot of trouble. Take a pair of nippers and pinch these off. If you pick up Master Piggy by the neck and force his mouth open these will easily be seen and easily nipped off. Do not pull them. This often saves the udder and the sore mouths of the pigs, for it is these sharp teeth that they use in fighting each other away from a teat.

It won't be many days after farrowing time until the sow and pigs must be out somewhere to get exercise. The single house now comes into play and no matter if the weather is a little cold, a cot set facing south and protected by straw, fodder or blankets, will prove sufficient protection, unless you live in the North or north central part of the corn belt, and select early March or late February for farrowing. These dates should be entirely avoided by the beginner unless he is amply equipped with modern steam or stove-heated community houses and often then the loss of pigs cuts the profit to almost nothing.

Get Sow on Green Diet

Have the houses or cots in half or one-acre lots where some green stuff will be growing by the time the pigs are old enough to get out and follow the mother. Oats, rye or barley, blue grass or clover patches. Alfalfa is still better. The earlier the sow can be put onto a partial green diet the faster she will bring her litter. There is little danger of scours in the pigs from this green feed. It more often comes from ground or condensed feed, or sudden changes of feed.

Every day after the pigs are two days old, they should be forced to exercise, even if you have to gather them in a basket and dump them out in the barn driveway. Exercise and sunshine spell success with pigs. These are the two great reasons we advise the new man to shun early farrowing dates.

If the pigs do not seem to be thriving, look for the cause. Occasionally a good looking, thrifty appearing sow fails to produce enough milk. If other conditions are right, increase her feed faster than advised above. Shorts or middlings mixed with separated milk will help. For the first four weeks, all crowding of the growth of the pigs must be done by extra good care and feed for the sow. Feed her milk producing feeds, middlings, shorts, or Red-dog flour. Twenty pounds of shorts with ten of cornmeal and the same of bran with 2½ parts of tankage, makes a good mixture.

Corn Not a Good Single Diet

Let me say here that corn is the standard hog feed in any climate and we believe that much of the disease that attacks the herd comes from indigestion caused by something foreign in the mill feeds bought today. But corn as a single diet is out of the question with the brood sow while carrying her litter or nursing the litter. If the sow has farrowed at a time that will allow her to be out on some green growing crop, when the pigs are about ten days old, your feeding proposition will be greatly simplified, for the pigs will soon help themselves and the sow will produce more milk from the right kind of forage than from dry feed. Winter rye, oats or barley will answer the purpose and I believe a two-fold object will be accomplished if every brood sow lot is plowed up in the fall and sown in rye or other small grain. The pens and runs will be made more sanitary and the sow will have forage when she needs it the worst. Blue grass will help some, but is late in starting in northern pastures.

One other thing must be avoided in unweaned pigs and that is "thumps." This disease comes from too little exercise and sunshine and too much feed. Cut the sow's feed at once and see that the pigs take exercise regularly. Dust in pen causes bad cough, but we find no record of it causing thumps. Thumps are caused by too much fat around the heart and only a diet and exercise will cure it.

Feed the Young Pigs

At about three weeks of age the pigs ought to be fed a little by themselves. Many good breeders continue to feed big and little together, but we are absolutely sure that the extra care it takes to have a little run where the pigs can eat a little thin slop or pick up shelled corn scattered around, will more than repay and they will do much better and remain more even in growth. Soak the shelled corn if you will, but I always thought the little fellows enjoyed the hard corn and they surely act like they liked to hear it crunch under their sharp teeth. Separated milk and shorts make a good slop, and a little tankage can be mixed with it for pigs must have more bone-making material than is common in most feeds if we are to have them grow right. Pigs increase in weight a greater percent during their third to sixth week than during any period of their lives if properly fed, and if we want right results we must get them proper diet. Clover pastures, or alfalfa will save an abundant lot of concentrated feeds, and either of these is an almost balanced ration for pigs. Government Bulletin 215 finds that pigs weighing 30 to 60 pounds gained 100 pounds each in the season when turned on alfalfa. At the Kansas Station pigs were given corn in addition and after allowing for corn, the alfalfa pasture returned 776 pounds of pork per acre.

Beware of too much thin slop. Pigs will gorge themselves on this and lay down and wait to be fed again. They soon become "pot-bellied" and dumpy. Shelled corn and forage and tankage is best.

Forage Crop Easily Supplied

A forage crop that is easily sup-

plied is an acre or two of rape and it has been found that less grain is required to produce 100 pounds of growth on rape than is required when pigs are on alfalfa. Rape and oats mixed, sown in our northern climates about April 10th, will furnish more good feed per acre for hogs than anything you can sow. The best bunch of spring pigs I ever recollect seeing was a lot that had alfalfa pasture and shelled corn. The alfalfa was divided into two even lots, and as soon as the tops were fairly well nipped off of one lot, they were turned into the other lot, the former being mown and allowed to get a good start again while the porkers were "trimming" the other field.

Weaning Time Is Precarious Period

One of the most precarious times in the life of the pig is weaning time, unless proper care has been used in bringing him to a point where he depends only in a small measure on the mother's milk. Many breeders follow the plan of allowing the sow to wean them, but if the pig is carried as rapidly as he ought to be for eight or nine weeks, the sow is being weakened for her future litter, her mating time for that future litter is being delayed, and the pig is benefited but little. Some of the most successful hog raisers we know commence at the time the little fellow is two or three weeks old, to throw out a little shelled corn scattered where they can pick it up undisturbed, once a day. At another meal, separated milk in a trough shut away from older hogs. Added to this, forage of clover, alfalfa, fall rye, or rape, and they will soon be looking out for a good share of what they consume. (Care must be taken to take the foam off the separated milk as there is a gas in this that is poisonous to Mr. Pig.) Mix in a little middlings or shorts, gradually thickening their slops as they grow older. In addition to these the pig should have access to some salted charcoal, fine coal, a little sulphur, air-slaked lime and pulverized copper.

Keep the skin of Mr. Pig free from lice and mites, for feed is high and you can ill afford to dish it out to a colony of hog lice. Use crude oil with a brush, or any of the well known coal tar emulsions. Most of these must be greatly reduced by the addition of water. Don't use to strong. Where a large number of hogs and pigs are being raised a dipping tank will be the surest and easiest plan, especially if you are raising them in our southern climate, where frequent dipping is necessary to keep the lice and mites down. They can be driven through the dipping tank in a few minutes and you will be sure every part of the body is covered with the killer. Rubbing posts are a big help and if you don't care to invest in one, wrap an old gunny sack around a post in the pig lot, saturate it with crude oil, and see how quickly they learn what it is for and what it will do. They will apply the oil in the right place without any effort on your part.

Don't Expect Too Much of the Sow

As an example of what is exacted of a brood sow during the eight or nine weeks of suckling a litter, note the result of an experiment carried on by Henry (Wisconsin) where a litter of eight pigs averaging approximately three pounds May 24th (at birth) gained by Aug. 2 an average of 432 pounds, or a total of about 345 pounds and in the meantime this sow weighing at the beginning 332 pounds lost 29 pounds. Every bit of feed consumed and 29 pounds of the sow's own weight went towards the pigs' gains. The right kind of a brood sow will lose flesh when suckling in spite of the amount of feed given.

Keep the Weanlings Growing

Care of the pig for 60 days after weaning time will have more to do with your ultimate profit from the

business than the care through any other period. If you can keep them on slightly increasing rations, with continued good appetite satisfied with properly balanced feed, your success is assured. There are so many things that befall "Piggy" in these days that continual care is necessary. If you are raising a good many, care must be taken to have them sorted into lots of different sizes and ages, so larger ones will not rob the backward ones. Be sure their beds and nests are cleaned free from dust, lice and mites. Crude oil sprinkled over the dirt floors will answer two purposes—lay the dust and kill germs. Pigs must be frequently dipped in some of the coal tar dips or sprinkled with some lotion of crude oil. Lime sprinkled over walls of the pens will help. It is so common to see a bunch of pigs driven out of a dusty pen coughing and kicking up a cloud, and we often wonder they are not all sick.

Sudden change of feed or cold, damp weather may bring on scours, another dire enemy of the growing pig. Shut off the feed and give small physic, followed later by light feed on thin slop with some lime water mixed with it, once a day. If the pigs have been taught when suckling to eat the same feeds that will be used in continuing their growth, you will have little trouble unless you attempt to increase too rapidly. They should be fed at least three times a day, giving them only what they will readily clean up. No feed should be left in the trough during summer months for them to eat later. It soon sours and sour feeds will put your pigs off feed quicker than anything that can happen to them. Many feeders follow the plan of mixing one feed a head, but I very much doubt the advisability of this unless it is in the matter of soaking shell corn for them, a plan which many follow with good success.

If you will keep ever in mind the fact that the pig's stomach more nearly resembles the human stomach than that of any other animal, and is adversely affected by the same things that cause the human to go "off his feed" you will be able to figure out some of the reasons why the pig isn't doing well, and you will also be able to avoid many cases of indigestion which delay the growth of the pig. Neutritis is a common complaint among well fed pigs and is often taken for an attack of cholera, but is only an aggravated case of indigestion.

Grow Some Clovers

Alfalfa or red clover pastures will be a wonderful help in bringing these pigs to maturity in right condition, and the oft-used expression "pigs in clover" is more than a pretty sounding phrase for it helps with the year's profit. One of the best posted hog men of my acquaintances prefers red clover to alfalfa for his pigs. He raises both hogs and sheep and buys alfalfa hay for his sheep and grows clover for his pigs. There are other crops not so good, but much more quickly grown, such as rape, soy beans, cowpeas and peanuts. Rape and oats sown the first week of April will be ready for the pigs by the first of May or a little later and a couple of acres of these will carry the pigs along nicely for some weeks if supplemented with slops and a little corn. Turn them on rape a little while at a time at first, as often the rape will affect the skin. Keep them off of it also for a few hours after rain and in early morning after a heavy dew. This mixed pasture is excellent also for older hogs and keeps their system in good working condition. Dwarf essex rape is probably the best variety and it is wonderful how much pasture can be grown in an acre or two of this. It furnishes green feed in July and August, just when it is most needed.

Shade must be provided for the youngsters during the summer and

either a wooded lot or artificial shade will answer. If there are no trees in the lot, then build a low shed made of short stout posts sticking three feet above the ground, covered either with brush and some straw or with boards, all four sides being left open. Keep the ground under the sheds sprinkled down with crude oil to avoid dust and its bad results.

Need Bone-Making Material

Most of the feeds used for growing pigs are lacking in mineral matter and this must be supplied by tankage and other bone-forming feeds. Milk is the greatest feed of them all for this purpose, but if little or no milk is to be had, then tankage must take its place. A mixture of other mineral matter such as rock phosphate, slacked lime, charcoal, using a little salt to make it palatable, should be kept in a trough or self-feeder. One of the best conditioners for pigs or grown hogs can usually be made right on the farm where ear corn is fed. Rake the dry cobs in feed lot, into a pile and set them afire, letting them burn until the pile is a mass of red coals, then put out the fire with a sprinkler of water, let them cool, sprinkle with salt and the pigs will go for this like it was the choicest morsel.

One of the most essential things for growing pigs and one of the things most neglected, and it is without a doubt, the cheapest thing that we could get for them; is plenty of fresh water. Whether by patent watering tank of some kind, or poured by hand in their troughs, they should have all they can drink. A pig's body is about 80 per cent water and the more we can give the pig to drink, the more he will grow and the more likely he is to keep in good condition.

In addition to shade furnished for the pigs, we should if possible have a bath for them in the summer time. A hog does not perspire and hot weather affects him more than most any other domestic animal, and a cooling bath in heated season is a big help. This can readily be made of cement.

An excellent feed for the growing pigs, can be made with two parts of middling or corn meal or ground barley, mixed with skimmed or separated milk. If this is too rich add bran, making more bulk to the mixture.

One of the best lots of pigs I have seen recently were brought along after weaning time with corn, oats and wheat ground in equal parts mixed into a slop with water, but the pigs in addition had separated milk twice a day.

Worms the Pigs Worst Enemy

Of all the enemies to the growing pig, the intestine worm is the most detrimental and most often found working against the proper growth of the pig. In picking up his daily feed the eggs of the female which have passed out with the extrement of other pigs are taken up and hatched in the intestines. These multiply rapidly and are soon sapping the vitality of the growing youngster. Yards and lots should be cleaned up often and all stagnant water drained off. A mixture of charcoal and salt or charcoal, wood ashes and salt will keep the common round worm under submission. But they often flourish and multiply so rapidly as to pack the intestines. Any worm powder that contains the proper amount of Santonin or German worm seed will do the work. No matter what you are using for expelling the worms, it must be given after the pig has been shut up without feed for a few hours, then followed with a good physic. As there are any number of good worm powders on the market properly made and sold with directions how to use them, it is fully as cheap and much easier to keep a supply of one of these on hand for frequent use in cleaning out the worms from pigs. A postal card to the De-

partment of Agriculture will give you a list of these that have stood the Government test and usually this fact will be found in the literature of the company which compounds the medicine. Clean quarters and the mixture mentioned above kept at hand for them will often ward off these pests and save delay in the growth of your pigs. A good conditioner at least once a week will keep their appetites sharpened to the right degree.

Essential to Keep Pigs Growing

It will be the main business of the hog grower from this time to marketing time to keep the animals putting on pounds every day. This can be done with forage, corn and mill feeds. One of the main things is to keep the animal in the best of physical condition, and as new corn comes in start to feed this very slowly, as it often upsets the digestive apparatus of the pigs and they go off feed and often develop severe indigestion and delays their growth and finish. Cutting a few stacks and throwing over into their pasture is a good way to start them. New oats in the sheaf thrown over to them is an excellent feed and keeps them busy picking this and they get considerable of the green straw while rooting out and devouring the oats. As the corn crop comes nearer maturity a portion of it fenced off and the crop of pigs turned in will bring some mighty good results. Experiments tried by not only the Experiment Stations and Colleges, but by practical farmers and feeders throughout the corn belt have demonstrated that this is one of the best ways to finish the crop of pigs for the market and finish them with as little labor as possible. At the same time it distributes over the ground the enriching fertilizer left by the hog in feeding, and not only saves corn husking and hog feeding, but it saves the hauling of manure from the hog lots. In this time of shortage of labor there isn't any plan that recommends itself to the feeder as thoroughly as does the practice of hogging down corn. Less of the corn is wasted than in any other way of gathering it. They will not pull down more than they will eat, and unless the fields are extremely soft and muddy they will tramp very little of it under foot.

Select Choice Gilts for Breeding

Before putting the pig crop into the corn fields, it will be well for you to select the gilts which you expect to retain to mate for your next spring's crop of pigs. These should be kept on a pasture and given only a little of the corn, as you will not want them so fat in late October and early November as the crop of pigs you are getting ready to market. They should have some middlings along with the corn and be kept on the green stuff as late in the fall as it is growing. Select the largest, stretchiest, smoothest gilts out of the bunch to save to mate for your next spring's crop. By this method you can always keep the size of your breeding animals from getting smaller and can retain the stretch and height necessary for good brood sows. The farmers and feeders as a rule do not keep gilts the second year, but they use spring gilts to breed in the fall for their next spring crop. Breeders of pure bred hogs, however, do not follow that plan, but select a few of the top gilts and add to their yearlings and aged sows, keeping the best of all of them to produce their pigs for the next year, getting rid of the sows of four or five years of age through the market route. As a rule the feeder markets his sows after they have raised and weaned their spring pigs and sends them over the scales in late June or early July, when the prices are usually at the highest points of the year. From a money making standpoint this may be good business, but in keeping up the stretch and size and vigor of the herd and the increase of profit by large

litters, it is not as good a plan as the one adopted by breeders who retain the best of their yearling sows. As a rule aged sows will farrow and raise two or three more pigs to a litter than a young gilt. She will usually impart to them more vigor if she is in the right condition when mated and fed correctly during pregnancy. The improvement or deterioration of your herd depends entirely on your selection of these sows and the boar to which you mate them for the next spring crop and it is a time when you need to use your good judgment and all care at your command, and it will take more than the knowledge you have gained during the year's experience to select gilts which will produce the best litters for you during the coming year. These gilts or sows should not be fat when they are mated for the next spring litter, but they should be just beginning to increase in weight so that their reproductive organs will be in the best possible condition. From mating time on their feed should be increased slightly to take care of the excess of nourishment needed for the litter that is to come and their feed should be increased very gradually up to within a few days of farrowing time. Either select one of the strongest, best boned, stretchiest boars of your spring crop to mate with these sows (not too closely akin), or buy a boar, either a spring boar or a fall yearling, from some breeder of reputation and buy him from a family of excellent breeding and of good type and one whose dams are noted for large litters. You will be able by this kind of selection to increase the litters in your sows and gain the additional profit. Personally I would advise a fall yearling boar on account of the extra strength and vigor that he can impart to the litter, especially if you have 12 or 15 sows to mate. One of the best crops of spring pigs I have ever seen was a lot of 150 pigs sired by a fall yearling boar. This man had bought two boars to use on these sows, 18 of them, but at the last minute just before mating time, one boar met with an accident which left the breeder with only the one boar. Fortunately these sows came in heat within a few days of each other and more fortunately he had this strong fall boar and mated two of them a day and sometimes three, until the eighteen were bred. They raised him 150 spring pigs, and in the following fall they looked like they had been produced from one dam. Pigs of this kind, fed out, going to the market are most generally the market toppers. It takes no more feed; usually less, but the evenness with which they develop makes the crop of pigs easy to handle and makes an additional profit at the market point in the fall. If this man had tried to use a boar of spring farrow on the sows he would have secured some very poor litters and an uneven bunch of pigs from breeding so many within such a short time, and result would have been in most cases disappointing.

CONCLUSION:

For twenty-five years I have been answering questions of the new hog men going into the business of producing and developing pure bred animals and one of the most numerous questions I have had asked is this: Where can I find a book that will tell me all about hog raising? There is but one answer to this question. That book has not been written. I have tried in this little story to present some of the difficulties and guide the new hog men around some of the pitfalls that come to the person who takes up the work of establishing a herd and producing pork hogs or raising to supply the breeding stock for the farmer and feeder.

Only a small portion of the questions that come up in the hog man's work are answered here, but I have tried to put the story in readable form

so that those under whose eyes it may fall can not only read as they run or rather go on with their work, but can understand the simple English in which I have tried to express myself.

Hints on Hog Husbandry

Hogs need water both winter and summer, especially plenty of it fresh and clean in the summer time. Make some arrangement to have the chill taken off the water which you give them to drink in the winter time.

Some grain should always be fed even to hogs on the richest pasture. As a rule two and five-tenths pounds of grain to each 100 pounds of live weight will take care of them where there is an abundance of pasture. Without the pasture three to four pounds of grain to 100 pounds of live weight will be necessary.

North Platte, Nebraska Experiment Station, proved in making experiments on the rations for fattening hogs that concentrated feeds added to corn and chopped alfalfa hay, 95 parts corn, 5 parts tankage and alfalfa in rack, showed up first place in the conclusion of the experiments. Corn and tankage without alfalfa showed second. Ground corn 90, oil meal 10 parts was third in the experiment.

The advantage of permanent pastures over ordinary forage crops is the continuance of growth from spring until late fall. Either a few hogs may be grazed during the whole season if left until after it has made a good growth or a large herd may be pastured on it for a short time.

An acre of rape and oats ought to support during the season about three sows and eighteen spring pigs on the assumption that a fairly heavy grain ration is fed and that the oats and rape are given a good start. Rape and oats make one of the best temporary hog pasture mixtures.

Pork cannot be produced economically if you let weanling pigs come along on pasture during the summer without any grain. They should be pushed along every day with a little grain until the fall grazing crops are ready.

Although peanuts, soy beans or velvet beans in the South are plentiful, corn and other feeds high priced, it will pay to feed some feed to supply the carbo-hydrate needed while the hogs are grazing on these crops. A balanced ration is the one that counts most.

The following is recommended by the Government as a good tonic to supply mineral matter to the hog's system. Dissolve coperas in hot water and sprinkle over the mixture.

Coperas	2 pounds
Slacked lime	4 pounds
Wood ashes	1 bushel
Sulphur	4 pounds
Salt	8 pounds
Fine charcoal	1 bushel

Be ready for the early fall market. The spring pigs must be fed a heavier grain ration than pigs intended for the winter market or for breeding stock.

Pigs on pasture usually get enough exercise. They should have a clean, well-protected shelter, well ventilated.

Pigs are troubled occasionally with sore mouth, canker of mouth, bull nose, "snuffles," etc. This is an infectious disease due to a germ getting into a wound in a pig's mouth. Dip the pig's head into a solution of one ounce of permanganate of potash

to a gallon of water every day for a week or more.

Corn plus alfalfa for the winter brood sow will be found as good a ration as can be devised by the hog grower Common salt should be allowed to be at hand for free access.

Provide plenty of shade. If the hog lot does not contain plenty of natural shade, then artificial should be supplied.

Keep pools or wallows clean. Stagnant and filthy water may keep the hogs cool but the evil results from unsanitary conditions over-balance that result.

Keep the sleeping quarters free from dust by spraying with crude oil. Hogs will not thrive while coughing and wheezing.

Concrete feeding floors is one of the hog man's best assets. It is a grain saver and assists in keeping the place sanitary. Such a floor should be six inches thick and if not laid against the hog house, it should have a curb extending from 12 to 8 inches below the surface of the ground. Floors should slope slightly towards one corner to carry off rain or water used in washing. For feeding floors concrete should be mixed to proportion one sack of Portland Cement, to two cubic feet of clean coarse sand, graded up to one-fourth of an inch; three cubic feet of hard durable gravel or broken stone from one-quarter of an inch to one inch in diameter. Concrete should be thoroughly mixed and should contain enough water to make the mass quaky, so that the concrete will flatten out of its own weight.

Any hog man, even in the corn belt, by adopting the plan of growing soy beans in the corn at the last cultivation and then turning in the hogs to harvest both crops, will be well repaid.

Hog lots and enclosures should be frequently plowed and refeeded, obtaining two objects at the same time. One to make them more sanitary and the second to produce more forage and pasture.

In the spring after the litter is weaned the sow should be given a good fresh pasture of some kind with a little grain and she will need but very little concentrate feeds for a month or two until time to begin to bring her into condition for another season's breeding. If she is to be bred soon again after weaning her fall or spring litters it is well to commence feeding her immediately after the udder is completely dried up. Grass and water with two or three ears of corn daily for each sow will be sufficient.

Prevention of ulcers or sores consists in keeping pens and yards clean and sanitary for the filth of dust and mud, etc., are carriers of disease producing germs. Wash any ulcers or sores with a 2% solution of any standard coal tar disinfectant.

Considerable relief can be gotten for hogs suffering from lung trouble, congestion of the lungs, and lung

worms, if a dip smudge is given once a month. Fix up a tight shed or stall, clean it thoroughly, put down five or six inches of good fresh straw, then saturate the straw thoroughly with a solution of 50 parts of dip to 50 parts of boiling water. Drive the hogs into the shed, crowding them pretty well, and shut all doors and allow them to remain there a couple of hours. The steam fumes from the dip will be inhaled by the hogs and cut the congestion from the lungs and be a wonderful help. On warm days a weaker solution of the dip may be used to sprinkle them. Do not give the smudges on cold or rainy days. When the hogs are turned out, be sure it is in the middle of the day, and do not turn them out to take more cold. The treatment is an antiseptic and a germicide, and a disinfectant as well.

The scour ailment is characterized by a whitish discharge with a foul odor. Causes are from over-feeding the sow or from a sudden change in ration, sour slop, and often comes from being in damp or filthy quarters. The best treatment of course is prevention. One of the best remedies found is to cut down the ration of the sow at once and give the sow about 4 ounces of raw linseed oil in the slop. If scours are not checked in two days, give the sow 5 to 12 drops of tincture of opium. Give the pigs one-eighth to one-fourth teaspoonful of the following mixture as a drench twice a day:

Bismuth of nitrate.....½ ounce
Salol .....¼ ounce
Bichlorate of soda.....1 ounce

Be sure that your hog lots and pastures are away from streams and public highways. Do not allow them to run on free range or highways or have access to canals or irrigation ditches. Do not visit your neighbor's farm nor allow him to visit your's if there is cholera on his premises. Do not use the hog lots for farm implements. Do not place newly purchased stock with your herd. Keep them in a quarantine in a separate pen at least for two weeks. Use care to prevent carrying infection from these to the other pens. Burn or cover with quicklime and bury under four feet of earth all dead animals and viscera removed from animals at butchering time, because they attract buzzards, dogs, etc., and they are liable to carry infection. If cholera appears in the neighborhood, confine your dog and urge your neighbor to do the same. Hog houses, lots and pastures should be arranged so as to be exposed as far as possible to sunlight, which is the cheapest and the best disinfectant. All the holes and cesspools should be drained and filled in or fenced off.

The sow's desire to eat her pigs may result from a number of things, as it is not natural for her to want to destroy her young. She becomes constipated and feverish and develops an abnormal craving or appetite and may kill her pigs for that reason. To prevent this condition she should be properly fed. Oil meal in the ration will assist in regulating her bowels. In extreme cases of constipation use epsom salts. The after-birth should be promptly removed from the pen and burned or buried. If left in the pens she is likely to devour it, and as the scent of the newly born pigs is similar, she may have the desire to eat them. A sow that has acquired the habit of eating her pigs should be watched carefully. The pigs may be saved sometimes by rubbing each as it is farrowed with a

cloth saturated with kerosene, being careful not to use but a little, as the kerosene may blister the pig's skin. When the sow detects this odor she will decide not to eat the pigs. Very frequently in her irritation or feverishness she steps on, or kills one with her head in bumping it and acquires the habit from eating the one she killed.

There are four very sharp teeth in the mouth of the pigs, in the rear of the mouth, and they are likely to cause trouble in tearing the sow's udder and they will be likely to cut one another's mouths while fighting for the teats. These teeth can be removed with tooth forceps, wire nippers or a knife. Always cut or break them. Do not pull them.

PART II

101 Fully Illustrated Plans for Building Hog Lot Devices

INDEX

Carts

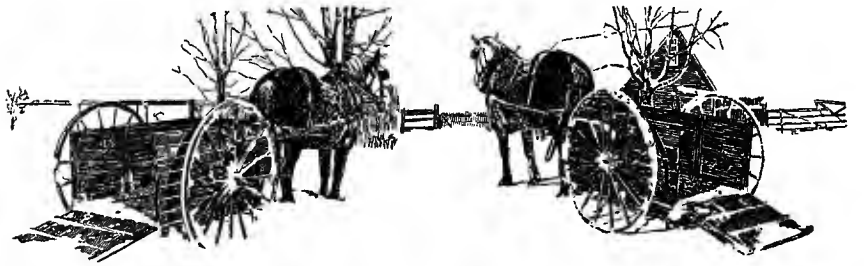
A Combination Cart

For some time I had felt the desire for an improvement on the "slop-pail —bushel basket" method of feeding hogs. I evolved the idea of a combination cart drawn by horse power, which would not only carry a slop or water barrel, but would be a handy conveyance for general use in the hog business. I went with my plans to the local blacksmith, and in a few hours we made a cart, which, after two years of constant use, has proved entirely satisfactory.

Two long cart shafts are attached to a heavy axle fitted with strong cart wheels. The width from wheel to wheel is the standard buggy width. The shafts are attached to the axle just inside the wheels. The axle is then bent downward and extended to within ten inches of the ground, then, carried across under the floor of the box. The box is made to fit inside this drop axle, and bolted securely, the axle being placed four inches to the rear of the center of the box to avoid tipping. The cross bar of the shafts is bolted to the front end of the box. The box itself is 5 feet long, 3 feet 2 inches wide and 2 feet 6 inches high. The rear end is hinged to the floor of the box with gate hinges. When let down, this makes a loading chute. If desired, this end gate may be unhinged. The sides of the box are of white pine, secured to the floor with iron straps. The flooring is of hard wood, as are also the heavy supports beneath. The cart is thoroly painted with heavy wagon paint.

The daily service of this cart has demonstrated that it was a practical investment. Not only does it accommodate the slop barrel, but it carries sacks of tankage, middlings and other dry feeds, hauls several bushels of ear corn, a good sized shock of corn or stover, fresh straw to the hog houses and soiled bedding and manure away. It transports a sow with her litter or a score of pigs. A-shaped cots can be inverted into it and moved with ease.

We find the ideal way to feed ear



Two views of the combination cart, a description of which is given above by C. Clayton Terrell, its maker, at Vienna, Ohio.

corn or shock corn to growing pigs or brood sows is to scatter it over a field from this cart. The hogs thus have a fresh feeding place each time, and are induced to take vigorous exercise.

This vehicle is of great assistance when the time comes to immunize the pig crop. It is used to convey the pigs from their various lots and fields to the central house where the operator remains and works under sanitary conditions.

The capacity of this cart accommodates the carrying of fresh bedding along with the regular feed. Thus, a soiled nest may be readily renewed, which otherwise might be neglected—and neglect means loss in the hog business.

Another handy use to which we put this cart is the moving of posts and fencing from one field to another when hogging corn. Rolls of fencing are easily loaded into the cart, the floor being only a few inches from the ground at the rear. Handling cement, sand and stone for concrete work; moving heavy articles about the farm; hauling stove wood; transplanting trees; hauling mulch dirt for gardening, and a dozen other such operations—all may be done to advantage with this handy low down vehicle.

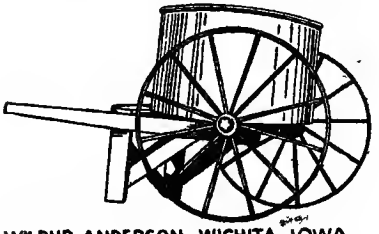
One of the most attractive features is that one may ride from place to place, and, with a good roadster in the shafts, save much time and energy.

I expect to make a new use of this cart this season in hauling water and fuel to our new tractor.

Experience with this combination cart has proved that it is the most used and most convenient vehicle on my farm.

This Slop Cart Expedites Feeding

The cart shown here I made with a pair of old cultivator wheels and a three-foot galvanized tank I bought. The tank was set over the axle back far enough so it would not tip forward, then I made an iron hook to fasten over top edge of tank at the back side, putting wire from the hook down to the cart and twisting it tight. A block was nailed at each side of tank to keep it from sliding into the wheels. After this, a 2½-inch faucet was bolted to the tank where a hole had been cut in the bottom front edge (the faucet has been omitted from the illustration).



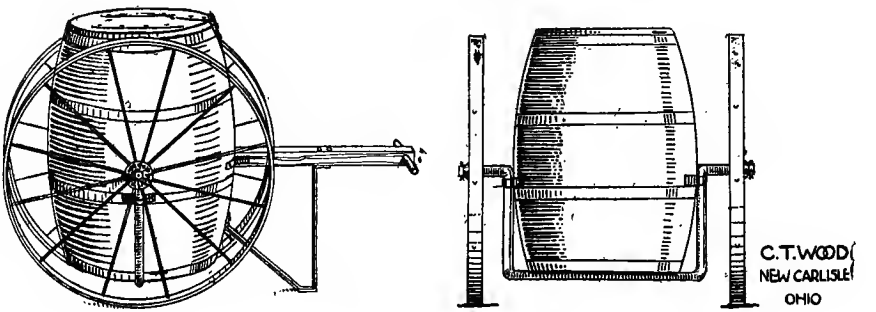
WILBUR ANDERSON—WICHITA IOWA.

I use the tank for mixing slop, then wheel to the troughs, open the faucet, filling up the feeders, making my slopping operations much easier. The whole outfit cost me $5.85, $5.00 for the tank, 85c for the faucet, the cart being made out of old materials.

This Slop Cart Gives Service

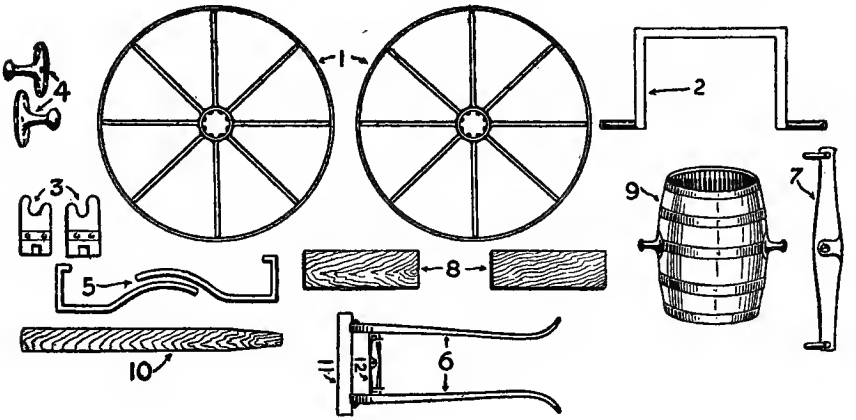
The illustration shows the most durable and practical slop cart I have yet seen. It is made from the arch and wheels of an old riding corn plow by reversing the arch and having it cut and welded the right length to fit under the barrel in a half round groove cut in the chime, making the barrel more solid. I furnished the barrel, arch and wheels and my smith charged me $3.00 for the labor and rest of the material. A piece of old wagon tire one inch wide will do to make the clip irons for the top of axles and to fasten the tongue to the barrel and also for the tongue rest. These are fastened by two bolts in each end of irons and the nuts are on the inside of the barrel. The tongue is an oak piece 3 ft. long and 2½x1¼ in.; it has a piece of an old fork handle 8 ins. long thru the end to pull by. The top end of the barrel is taken out and two pieces of strap iron bolted across them for a lid, and an ordinary strap hinge is used to fasten it to the front side of the barrel so when it is open it rests on the tongue.

This is an important feature to me as it keeps the chickens from drowning, and if properly hung, will keep out the flies. It is high enough from the ground so that you can back it up to the trough and pour out the last of the slop and keep out all the settlings, thus keeping the barrel sanitary, which I think is very essential in hog raising.



A Slop Cart

The attached drawing indicates the parts to use in the construction of a very handy and efficient slop cart. I will endeavor to explain how it is set up. Nos. 1 are the wheels; No. 3 slips over the hanger No. 2 thru the square hole in the hangers. Then brace iron No. 5 bolts to hanger No. 3 where the two round holes are indicated. Brace iron No. 5 hooks over cross piece No. 12 with a bolt thru each. This is to prevent barrel from upsetting. The front of square arch No. 2 lays on top of the wood cross piece No. 11 and fastens with two staples, straddling the iron at each corner. Lugs No. 4 bolt on side of barrel No. 9 in the center and the single tree No. 7 bolts on cross pice No. 12, and the Nos. 4 will swing in the grooves No. 3. The long point of No. 3 is on the rear. The boards No. 8 lie on the brace iron Nos. 5, which makes an ideal place for carrying basket for corn or slop pails.



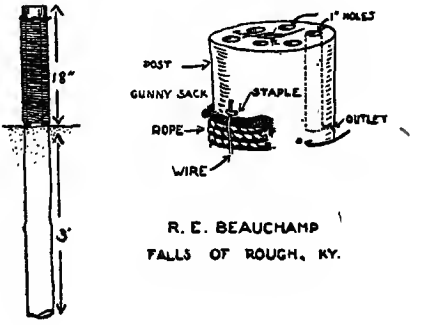
This is one of the most convenient carts for feeding and hauling the water for large or small herds. It is also easily cleaned. No. 3 hangers are made of malleable iron to prevent breaking.

Oilers

This Oiler Chases Lice

My good handy home-made hog oiler has proven of great value and has saved a great deal of money for us on our Duroc farm. The oiler is made by taking a round locust post six inches in diameter and 4½ feet long, boring six one inch holes in the top near the outer edge and about six inches deep; and with a small gimlet bit bore one or two holes from the outside of the post into each of the larger holes near the bottom. Take some burlap (or old gunny sacks) and wrap around the upper eighteen inches of the post, covering the small holes. Take some rope (about $\frac{5}{16}$ inch is preferred) and wrap closely over the burlap, and staple several wires up and down over the rope. Next (set the post in the ground, and pour crude oil in the one inch holes, and the hogs will gladly do the rest.

We have found lice, one of the bad pests among hogs, and this cheap oiler will cost practically nothing to build and is easily looked after by keeping the holes filled with crude oil. You will kill all the lice and keep the hogs' skin in good shape.

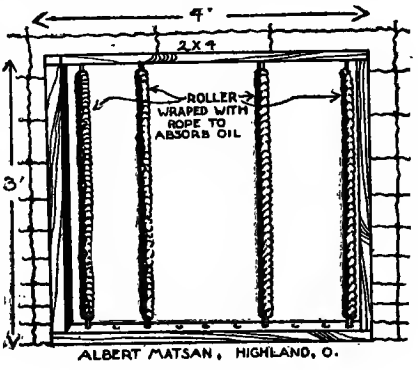


R. E. BEAUCHAMP
FALLS OF ROUGH, KY.

Hogs Like This Roller Oiler

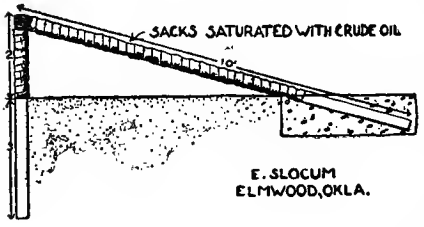
The oiler for hogs shown by the sketch below is intended to be used in a gate which the animals must of necessity pass thru. When they pass between the rollers, wound with rope saturated with crude oil, they are well oiled each time they go to the feeding pen. The rollers can be adjusted, according to the size of the animals to be accommodated, so it will catch their sides well. It is well to keep the ropes saturated with crude oil at all times for best results.

This is three feet high, four feet long, and built of 2x4 oak material. The rollers most popular to wrap the rope around are 3x3. You will find this a good investment.



A Serviceable Hog Oiler

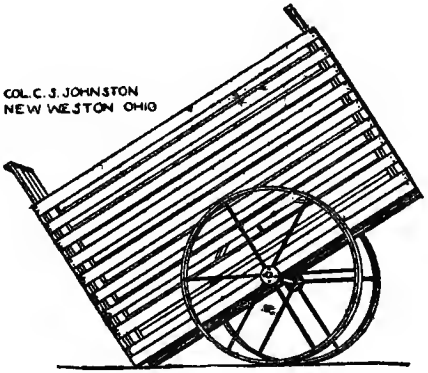
The following is a description of a hog oiler and rubbing post, one that a large hog will not upset and that is suitable, also, for the small pigs. In fact this is a successful oiler as a pig or hog wil rub any part of its body on it and will get astraddle of it and oil parts that other oilers fail to oil. It is simple, durable, economical, and serviceable for all sizes and ages of hogs. When in use there will be no lice or skin disease. These are reasons why you should have one, too, brother breeder.



Set a strong five foot post in the ground three feet deep, leaving two feet to stand perpendicular, then, mortise one end of a ten foot 4x4 into the top of the post and bolt securely, leaving other end of 4x4 to extend into a hole dug in the ground 1½′ deep. Fill hole around 4x4 with cement to make solid, wrap 4x4 and post with gunny sacks, and wrap them with smooth wire and staple at intervals of four to six inches. Saturate with crude oil, and it is then ready for use.

Handy Crates Holders Traps

Combination Chute, Crate, Ringer



I have a hog crate, loading chute, ringing pen, all in one item of equipment, made on a swag iron axle, in the center, so as to tip up with either end the right slant in wagon. When using it as a crate, just drop in the end doors, also for use when ringing or tagging.

This device is 7 ft. long, 30 in. wide, 4 ft. high, and the end doors are dropped in from the top. Its being on two wheels makes it possible to move where desired on the farm to load or unload hogs of 1,500 lbs. each, or to fasten behind your car and run it as fast as you want to. I find this as handy a combination as "a pocket in a shirt."

Advantages of the Breeding Crate

PROPER management at breeding time frequently results in the breeding of a great many sows that otherwise might fail to mate and would necessarily have to be carried over to the next season, thus involving expense without producing a litter of pigs. This condition may be partly overcome by the use of the breeding crate, which is growing in popularity.

Some sows when in heat will not take the boar readily and will often hinder a successful service by lowering the vitality of the male. When a small sow is bred to a large, heavy boar there is danger of injury to the sow if some mechanical device is not used to help bear the weight of the boar. Such a device can also be used to advantage when a small boar is mated to a large sow.

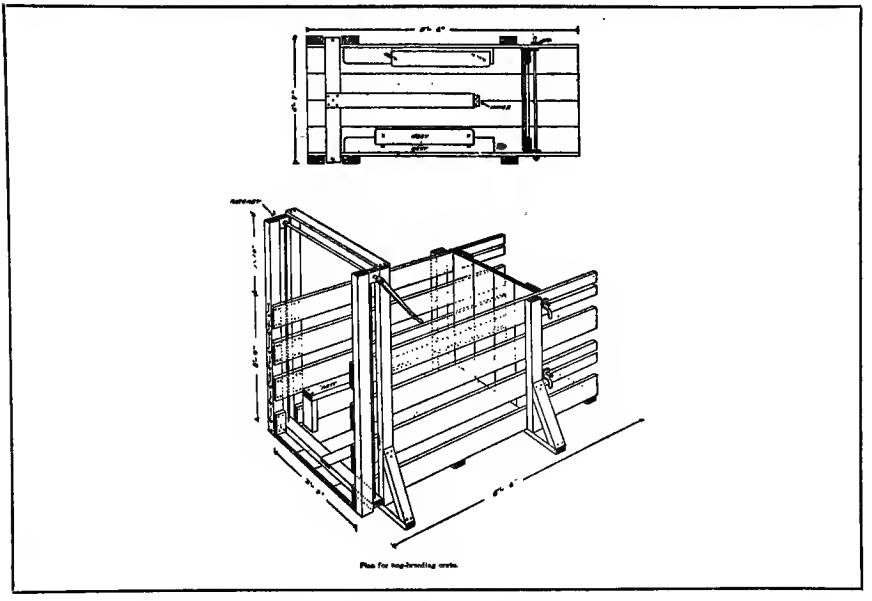
There are many types of breeding crates which the farmer may construct. The accompanying illustrations show a crate that can be operated by one man and is easily constructed on the average farm without involving much expense.

Directions for Operation

The sow is driven into the open end of the crate until her hind feet are in front of the crosspiece of the T-shaped lift. The sow is elevated by means of the lift, which is drawn up by a windlass as shown in the illustration. A ratchet on the windlass holds the sow at the desired height. The partition at the front end of the crate operates on a slide and can be arranged to suit the length of the sow. Thus, if the sow is large the partition can be moved toward the end of the crate to allow plenty of space without cramping her, and in the case of a small sow the partition is moved closer to eliminate an undue amount of space. The point to remember is that the animal should be in a natural position in order to obtain the best results.

When the sow is properly placed the boar is brought up. His hind feet should rest on a flat cleated platform laid on the ground to give him a solid footing. The cleats should be 1 by 2 inches to prevent slipping. His front feet will fall upon the rest, as shown in the drawing, the sow being required to bear only a small part of his weight. The sow should then be raised or lowered, as the case may be, to the proper height by means of the windlass. When a small sow is bred the short top rests are extended to hold her firmly in position.

After breeding, the boar is driven to his pen or paddock. The sow is removed from the crate either by releasing the ratchet on the windlass and allowing her to back out or by removing the sliding partition so that



she may walk out the front end of the crate.

Bill of Materials for Constructing a Crate

Dressed or undressed lumber may be used in the construction of a breeding crate. The material required will total about 140 board feet of lumber of the following dimensions:

5 pieces, 2 by 4 inches by 16 feet long, for uprights and sides.

14 pieces, 1 by 6 inches by 12 feet long, for sides and flooring.

Hardware, Etc.

2 pieces, ½-inch iron rods 30 inches long, with 2 wing nuts, as shown in illustration, for sliding partition.

1 piece, 1-inch pipe 2 feet 10 inches in length, with handle and ratchet, for windlass.

12 feet sash cord, for windlass.

1 pair hinges.

4 angle irons, ⅜-inch thick by 1¼ inches in width, and made 2 by 3 inches, as shown on the sliding partition.

5 pounds 10-penny wire nails.

2 pounds 20-penny nails.

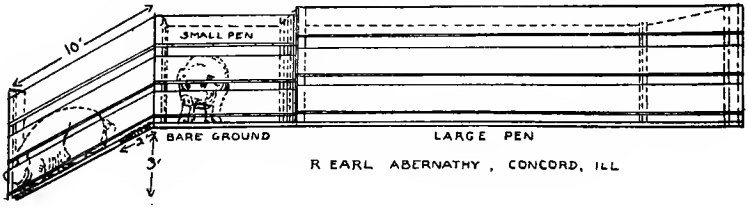
It is not absolutely necessary to construct the crate as shown. Other methods of making a windlass that will answer the desired purpose may suggest themselves. For instance, instead of being made of iron, it could be made of wood in much the same manner as the old wooden windlass used over wells.

A Catcher That Does the Trick When Ringing

Those who are familiar with catching hogs in a hog catcher will know that after an old sow has been caught and operated on a couple of times it is a job to drive her into a hog catcher, and hog ringing, while effective, must be repeated from time to time because of the loss of the ring. Sometimes an animal is wanted for various other reasons. With the ringing arrangement shown one man can easily ring a bunch of hogs without assistance.

Make your pen in two compartments long and narrow; make a chute 2 ft.x10 ft. at one end, placing the partitions close up, leaving room for only a few hogs behind the chute. The bottom of the chute is to be three feet lower at the outside end; locate your hog catcher here. If you have a hill side, everything is ready; if not, dig a pit. Attach two small ropes to the lever of the hog catcher, letting them run back to a small gate in the partition, fixing them so the operator can open and close the lever with the ropes. Lay two boards 2 in.x12 in.x8 ft. in the chute as a floor, planed smooth on one side, and well greased, ending them close up to the hog catcher, leaving about two feet of bare ground in the chute behind the boards.

Now the hogs can be driven in the big pen, then open the small gate, cut out five or six in the chute pen, and with the ropes, open the gate enough for one to pass thru. When he hits the slippery slide, he is sure to go into the catcher. Have the lever blocked so it will open only wide enough for the jowels to get thru until after operations, when it can be opened wide, and Mr. Hog will slip thru of his own accord. I find this does the trick.

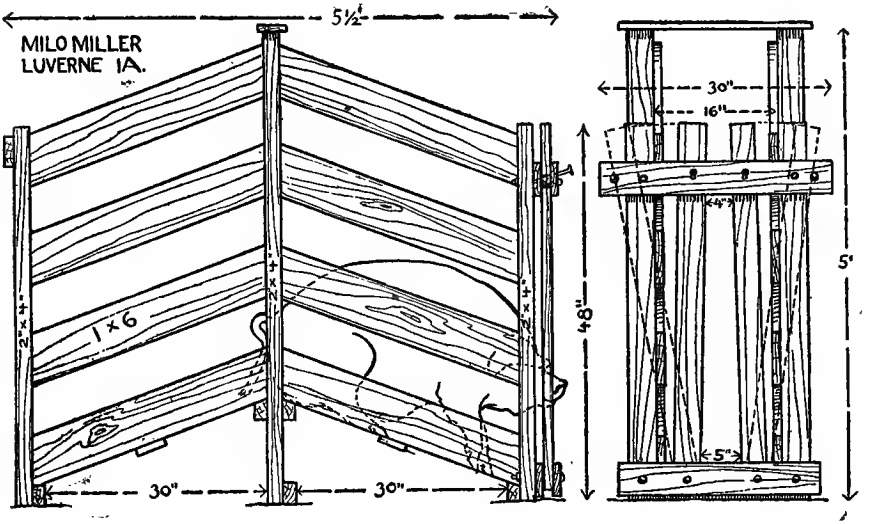


A Hog Ringing Crate

Here is a hog-ringing crate. With it we can ring one hundred hogs an hour. One man can make this crate in an hour or two and the material needed used (2x4 and 1x6) are so short as to be worth little for anything else.

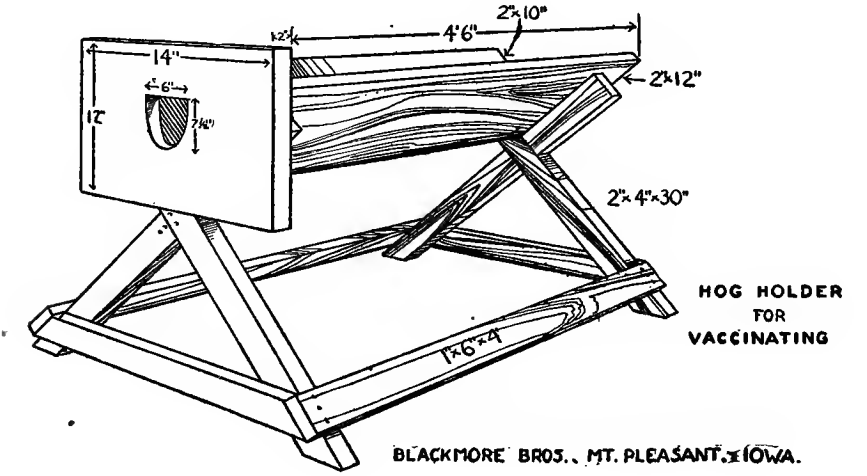
The measurements indicated in the diagram are taken from the one we use. It is just right for pigs of 100 to 200 pounds, with larger hogs it would be necessary to build a larger crate.

It takes two or three men to run this machine. It is placed in front of the door of the hog house and one or two men inside drive hogs into it, while one man does the ringing. The pig walks up one side and down the other and holds himself with his nose between the two boards. It is then an easy matter for the operator to ring him, after which he pulls the pins from the top of the board, allowing them to spread, thus permitting the hog to jump thru. The operator stands on the left side and holds the pig with a patented or home-made pig holder with one hand and rings them with the other.



Hog Holder for Vaccinating or Castrating

We have a holder used for either vaccinating or castrating hogs that is exceedingly satisfactory. The assistant state veterinarian in Mt. Pleasant says it is the best thing he ever saw for that purpose and we heartily agree with him. The pig is laid on its back with nose well through the hole; while one man holds his fore-legs and another his hind-legs, the vaccinator's work is then very easy, as the pig can neither move nor squeal. You will like to use one, we believe. The sketch shows materials and details of construction.



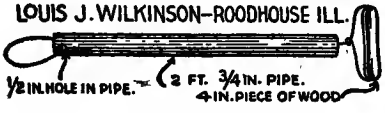
A Handy Hog Holder

I submit plans for an inexpensive hog holder that will be found to fill all needs for such a device.

The materials required are 2 feet of ¾ inch gas pipe with sharp edges dressed off; 3½ feet of clothes line wire; 4 inches of pitchfork handle, or similar material for handle of instrument.

Bore a small hole ½ inch from the

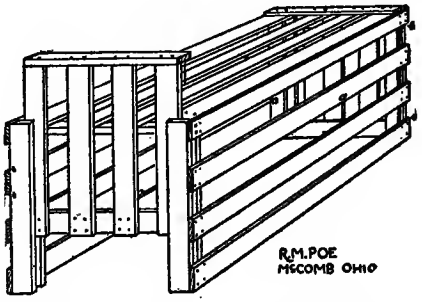
lower end of the pipes and fasten the wire in same. Then run wire through the pipe and lengthwise through the



4 inch handle and form a loop by fastening the wire back on itself.

It is now ready for use. Push down on the wire, forming a loop at the lower end of the pipe. Slip this loop over the hog's nose through the mouth and pull up on handle and down on pipe.

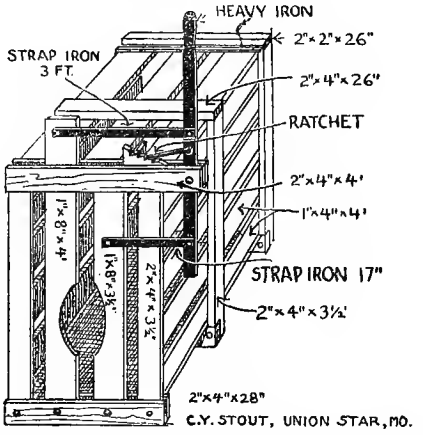
A Pig Trap



I have made what I consider one of the most useful of hog farm devices which I call my pig trap. It consists of a crate made on this order: Height, 2 feet; width, 22 inches, and 4 feet 6 inches long. This is made very similar to a hog crate, but it has no bottom in it, and both ends are made to slide up and down when desired. The top strips are mailed lengthwise of the crate instead of crosswise. The trap should be made of light lumber so that it will be light to handle.

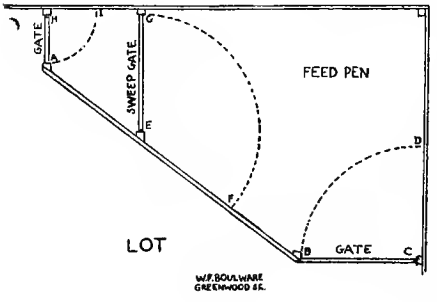
When wishing to catch any pig, throw down a little corn and your pigs will soon be busy. Let your customer choose his pig, then pick up your trap, walk among your pigs, and drop it over the one desired. It matters not toward which end the head is in the crate, as either end will slide up and down. It is then possible to set a crate at the end of the trap and quietly walk your pig into it. There is no hard work in the operation, no squealing or excitement, and I believe that I can catch every pig one at a time and the last pig will still be eating when caught. I would not be without my hog trap for a good deal.

A Ringing Chute



This simple Ringing Chute can be used for removing tusks from boars, and to haul hogs to town as well as for Ringing. The frame is made of 2x4's of pine and the rest of cypress. The 2x4 side pieces are laid flat, and the 2x4 top cross pieces in front are on edge. The top center 2x4 is laid flat and a 2x2 is used on top at the back. The 2x4 cross pieces under the chute are on edge and the 2x4's are sawed so they can be bolted together with 4 inch bolts. Three 8 inch boards 54 inches long make the bottom and all boards are nailed on the inside of the 2x4 pieces. Top boards are cut 2 inches short to allow the end board to drop in place. Two strap irons are used on the end for cross pieces. Four 6 inch and fourteen 4 inch bolts are used.

A Handy Catching Pen

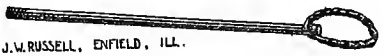


The accompanying sketch shows the plan of my device that I have used for some time and found it very convenient in catching hogs on my farm. In one corner of your lot build a straight fence, forcing a triangle pen from A to B. Hang a large gate at C, open to D and closed at B; hang a large gate at E, open to F and closed at C; hang a small gate at H, open to I and closed at A.

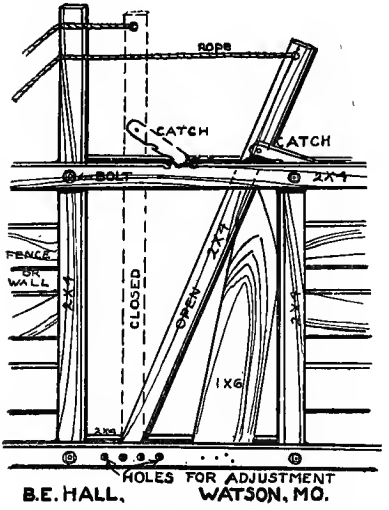
To catch a hog easily, feed near the small gate, and close the "sweep gate." Place your crate at small, open the gate, and the hog can readily be driven in. I find this pen to be especially handy for catching pregnant sows or animals of all kinds without running or exciting them. I also find by having a door at both ends of my crate it makes it very easy to get the hog out of the crate.

A Simple Hog Holder

Get a round stick about 5 feet long and bore a 5/8 inch hole in one end of it. Run a 1/2 inch rope thru the hole and tie the ends securely. Get this loop around the hog's nose and twist. You have him so he can't get away and can proceed to insert rings in the nose. We can easily ring the hogs by ourself with this handy and simple instrument.



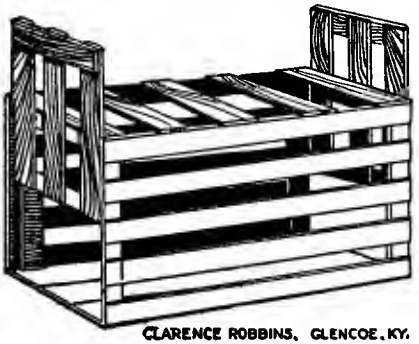
A Trap That Gets Them



The trap to catch and hold hogs I first made when just a boy and have never seen a hog too big to be held so still they could not flinch or jerk the least bit when being rung. To remove the tusks from old boars catch them in this trap and using a staple puller to grip the tusks, you can break them off smooth close to the gums. Use the notched places in pullers, same as gripping a staple to pull.

This trap works best built in a narrow alley, a gate, or door will do, and hope it will be helpful to more than one breeder.

A Handy Crate

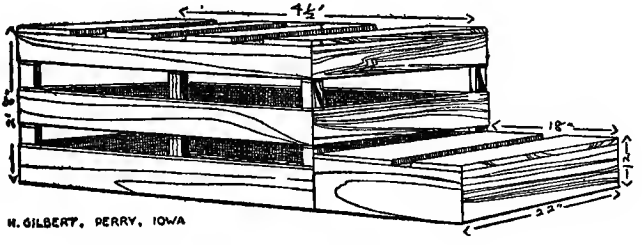


CLARENCE ROBBINS, GLENCOE, KY.

The crate shown in the accompanying drawing I have found very handy in moving hogs from one part of the farm to another. The sketch is self-explanatory as to construction, but I will add that it can be set on a sled, the hog driven in at one end and out of the other by having both ends so that they can be raised.

Sow and Litter Shipping Crate

This crate is very handy to ship a sow with litter by her side. The pigs can be kept in the small enclosure at the end of the crate and will keep out of danger's way. The diagram below will explain the measurements, etc.



H. GILBERT, PERRY, IOWA

Creeps and Gates In the Hog Pen

A Creep for Young Pigs

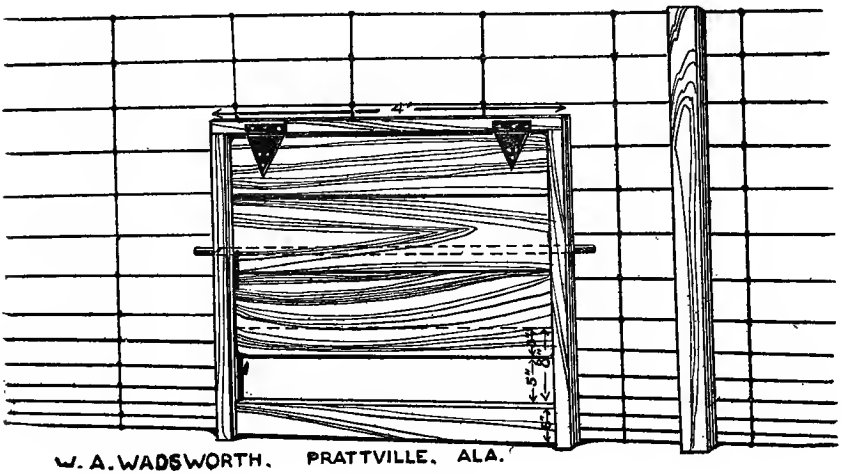
To teach young pigs to eat at the earliest possible age, we use flat bottom troughs 12 inches wide by 4 inches deep, in which to feed the mothers. The small pigs soon learn to eat from a trough like this. As soon as the pigs learn to eat well from this trough, build a division fence which will prevent the mother from getting to the trough. Feed the mother near by in a trough with the top at least 12 inches from the ground and make a creep hole near the ground so the pigs can get to the low, flat trough containing pig feed.

When several sows have pigs a month old and over, we bunch them and feed the young porkers in a common pen.

* * *

Our feed pens are formed in the shape of an L, a row of pens 6 feet by 8 feet being arranged for each individual sow. The bottow of the L forms the feed pen for the pigs; the open side is toward the pasture.

When we first used such an arrangement, we noticed as the pigs grew they got wedged in the creep hole. We found that some smart pig, too large to get in would take a running start and leap into the hole and become wedged hard and fast. Many pigs that could just get in would be unable to get out after they had eaten their stomachs full. So we wanted a creep hole that would not wedge a pig and that would be larger for the pig when coming out than coming in. We made one to fill the bill, and here it is:



Six inches from the ground make a horizontal opening 8 inches wide and 4 feet long. At the ends of this opening set two uprights (2x6) on the outside of the pen. Nail these to the pen edgewise; this forms a door facing. Make a door to fit between these uprights and hang it from above so that it will cover three inches of the opening at bottom.

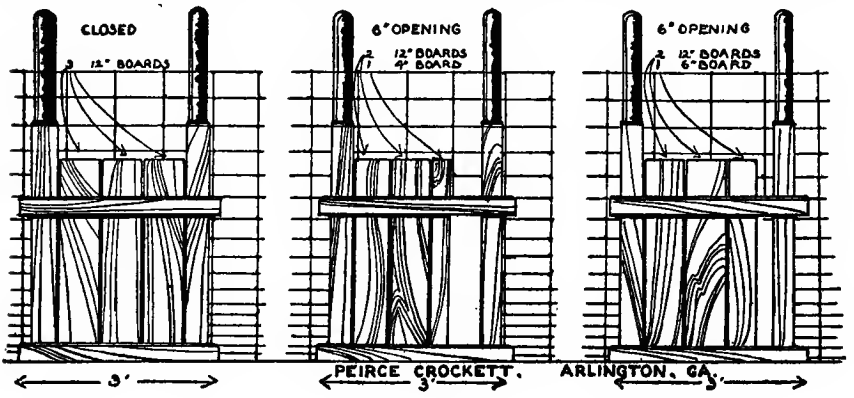
The hinges are mastened to a 2x4 that rests on the top of the facing. A 2x6 four feet long between the door facing and underneath the creep hole does the job. This makes a creep hole 5 inches wide and 4 feet long so several pigs can get in at one time. The pigs go in thru a five inch hole and come out thru an eight inch hole. If a pig gets wedged, he backs out and the swinging door opens and never injures an animal.

When the pigs are eating, we open the doors to the sow pen and let the sows in one at a time and close the door on her to prevent fighting. We have several pens for pigs of different sizes.

It is necessary to have a facing so the bottom of the door hangs well inside of the facing to keep the sows from opening it. We nail a strip horizontally across the facing midway of the door on the side the door opens to keep the door from opening too wide and to give strength to the whole thing. Thus we have a creep hole that is never out of shape.

An A-1 Trap for Hogs

I have a simple and inexpensive equipment on my farm which I wish to give to brother breeders. It is what I call a hog gap, and I think anyone raising hogs could use it with satisfaction and profit. I use it

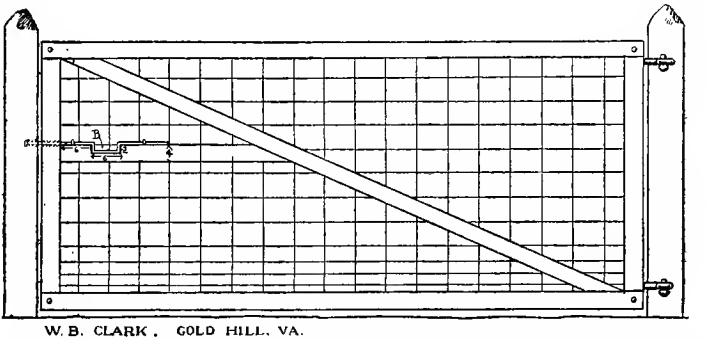


between all my fields and bermuda pasture, at my dipping vat, and between field and field. It is made in this way. I go to my wire fence, put in two good fence posts three feet apart, staple the wire to them firmly, then, beginning at the bottom of the fence, I leave the two bottom wires there, but cut the wires above these as high as I want the gap, say two and a half or three feet, leaving the two bottom and top wires in tact. Then take a 1½x4 and nail on posts up and down the same side of fence wire is nailed on. I nail on two cross pieces, 1½x4, one across the bottom just coming up even with the two wires left, the other three feet above the first, making an opening 3' x 3' which will admit any of my hogs or pigs, but not admit cows or horses. To stop this hole up, I take three one inch boards 12" wide and about 4' long and stick down between the wires I left uncut at bottom and top of fence and the two cross pieces, this making it secure until you want it open. Boards of smaller width, can be inserted in the place of the twelve inch board to admit only small pigs and shotes in a corn field just after laying by on any other field to eat lots of succulent grass, weeds, and fallen corn which would otherwise be lost. Listen, Mr. Hog Raiser, they will get fat and make you money, whereas if you let the old sows in there, there would be lots of corn wasted. You can make this gap in a plank or rail fence as well. I use it at my dipping vat and feeding pens as well to keep the big hogs from running over and crushing the little ones.

Plans for Building a Gate

The frame of the gate shown in the following drawing is made of hardwood boards 1½x4 inches, and of course must be of such length that will meet the requirements of the size of gate. There is one brace, as is shown by the cut, 1½x4 inches; also one piece of hardwood 1½x4 inches and one piece of iron 24 inches long (after being bent) and ½ inch in diameter. The covering is hog wire of good quality. After the frame has been made a piece 2x6 is taken out of the 1½x4-inch oak, six inches from the end that is to be next to the latch post. This piece is now nailed flat sided, and a hole is bored thru the gate-frame and into the post (about 2 inches into the post). This iron has now been bent and is fitted into the bored hole so that the crook fits into the notch marked "B" in the sketch.

Now, two staples are nailed over each end of the iron rod to hold it in



place. To open the gate, simply raise or turn up the U-bend in the iron and slip it back from the post; this lets the gate swing open. To close, the gate is pushed back, the iron slipped back into place, and the gate is then secure. No hog can either raise or open the gate. This gate is very simple and inexpensive and is too valuable for hog men to overlook.

A Practical Hog Farm Gate

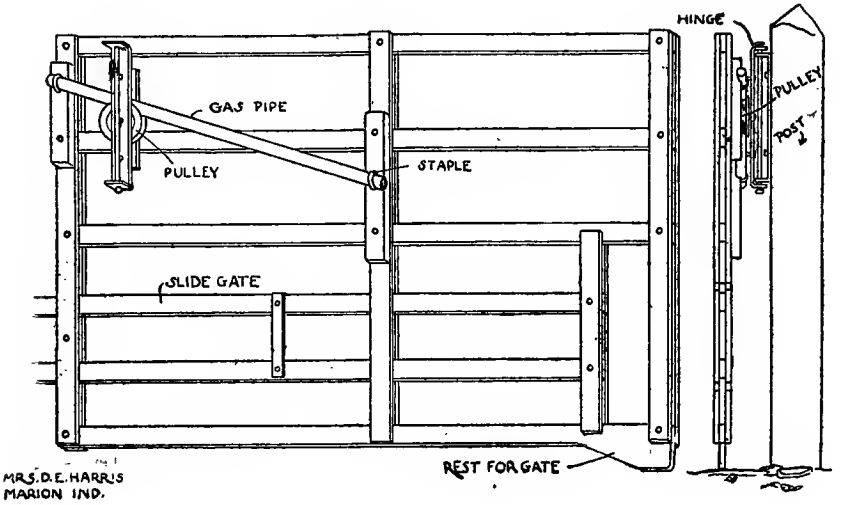
I am not the man of the house, but since my husband and I have spent our twenty-six years of married life on the farm, where we raise from 300 to 500 hogs each year, I decided to send you a draft of the kind of gates we use. We have never found anything yet in the line of gates that we thought equal to this one. It does not require a heavy post to hang on and it is operated as easily by a child as by a man. It saves much heavy work in exchanging your hogs, and if you should have horses or cattle in the field and it is desired to permit the hogs to enter the lot without the cattle or horses getting thru, this gate answers the purpose admirably.

This gate is operated wholly upon the two flat iron pieces, one of which is attached to the post and the other to an iron strip on the opposite side of the gate. A rod connects these two iron pieces, thus forming a very strong, indestructible hinge. Between the iron piece closest to the gate and the iron strip there is a pulley which operates upon a piece of one-inch gas pipe, attached to the gate as indicated in the diagram. To open this gate you take hold of the extended slat (which the artists failed to indicate in the drawing, but which is simply an extension of the third slat on the end of the gate opposite the hinge) and push the gate di-

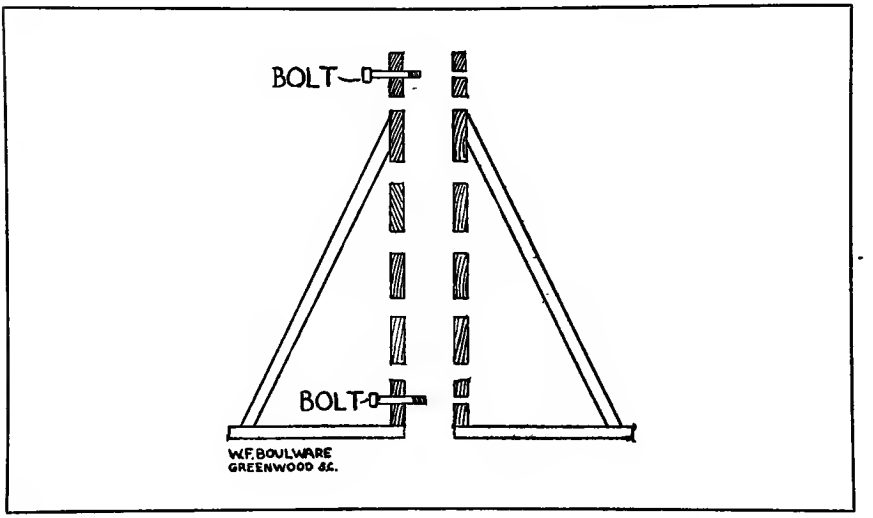
rectly from the latch post toward the hinge post until the pulley is as far toward the center brace of the gate as it will go. It is a simple matter, then, to swing the gate around off the ground and free from interference of cobs or other refuse.

Not the least feature of this gate is the lower slide which is easily opened to permit the passing of hogs and sheep without the cattle or horses getting thru. The diagram shows the gate and hinge very clearly, and to fasten this gate shut, merely allow the extended third slat to drop over a hook on the latch post.

I am sure that many will see the real worth of this gate and have some of this kind made, for I am sure that none other will answer after trying this kind.



A Portable Fence



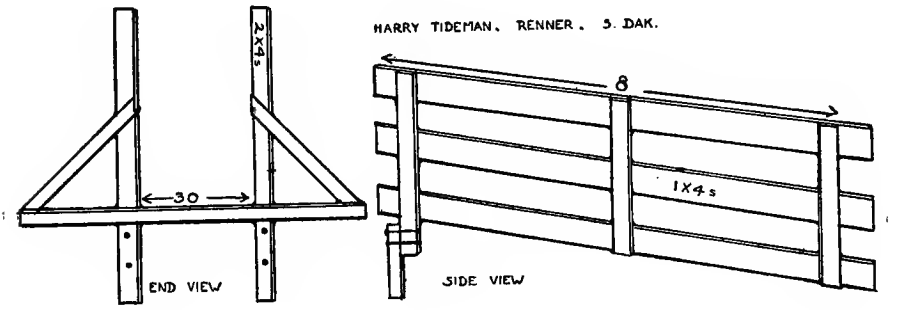
The portable fence shown above, in my opinion, is a very handy item of hog farm equipment, and I have found it especially convenient in separating a sow before farrowing or to confine them on certain feed patches, etc. Many other ways, however, can be found for the use of this fence.

In the construction, make a triangular frame of 1 x 3 material, consisting of base 18 inches long, upright piece 4 feet 6 inches high, and brace 4 feet 3 inches long. Use four light 8-inch planks 16 feet and nail on outside of frame. Put frames eight feet apart; make them in right and left hand sections, and fasten together with machine bolts at top and bottom of each lap. This can be moved from place to place anywhere on the farm and will be found almost indispensable to the live stock raiser, especially of hogs.

Chutes For Loading

A Handy Hog Chute

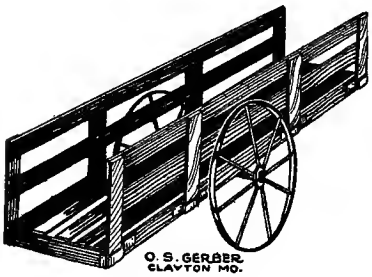
The hog chute described here is 8 feet long and 30 inches across on the inside, 2x4's and 1x4's with boards in bottom with cleats across. The uprights at upper end are 5 feet 6 inches, and are made in two pieces with bolts and extra holes so they can be adjusted for either a wagon or a sleigh. There are three cross pieces under bottom 5 feet long and extend 12 inches on each side for nailing the braces to. No cross pieces are necessary across the top of the chute.



Wheeled Hog Chute

If the stationary hog chute would always be at the right place and would not shelter so many weeds, I would, perhaps, forget about its unsightliness. But this is not the case, however, and that is the reason I devised a light but strong chute and put it on wheels so that I can take it anywhere on the farm to load hogs, etc., and in case Neighbor "Jones" has no chute I can tie it on the end of my wagon and take it along, and when thru using it, I can run it in the implement shed where it is out of the way and in shelter.

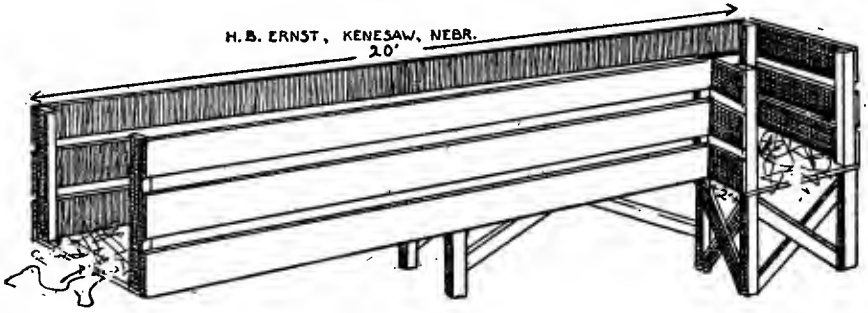
This chute is 10 feet long, 2½ feet wide, and 2 feet high (inside measurement). There are three 1x4 boards on



each side bolted to the four standards which fits into strap iron sockets. The standards are of 2x4 material, and the sills which hold the sockets are 2x6. Four 2x4 cleats bolted underneath support the floor which is made of 2x1x12 boards placed lengthwise. Nail toe hold strips 6 inches apart on the floor. Make an axle of 1½ inch pipe of sufficient length to fit a couple of old cultivator or other suitable wheels. Then, use paint freely, putting the finishing touch on this useful article.

A New Idea Loading Chute

The diagram below shows my home-made chute constructed 20 ft. long with a gradual slope. At the top and even with the wagon box I have a two-foot turn where the hogs go on the wagon. This turn takes those hogs in the lead out of sight and the hogs in the long chute follow as though they were being driven into another pen. I always bed the chute and wagon box with straw, so it seems like home to the hogs.

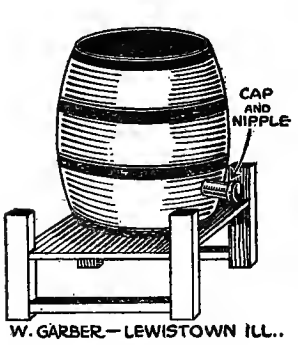


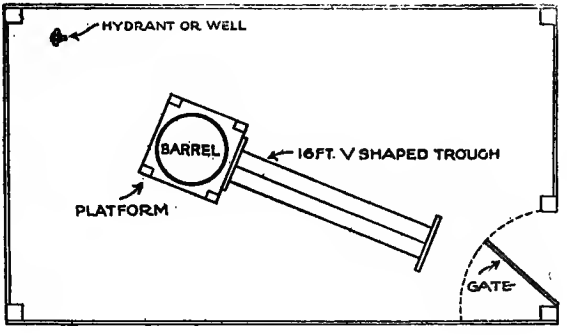
Slop Barrels
Troughs
Self Feeders
Automatic Waterers

This Method Saves Slop

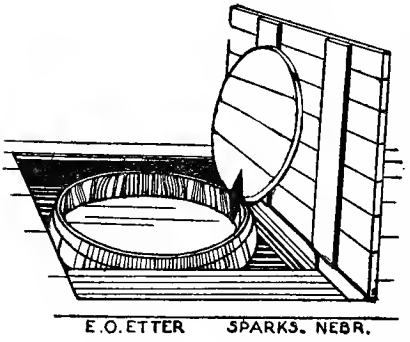
Here is a slopping method that I have used continuously for five years, and that I would not be without. Following is the process of construction:

Bore a two-inch hole in barrel just so the lower part of the hole will be at the bottom; get a five-inch nipple, and cap, with threads cut on both ends of nipple. The nipple is screwed with a pipe wrench into the barrel just so it will go thru to the inside. Make the bottom of platform just high enough so it will clear the end board of trough, and large enough so that after the barrel is placed thereon, there will be plenty of room for you to stand when mixing slop. At slopping time, stir slop up well, unscrew cap from nipple and watch results. Set trough as in illustration, and when the pigs are let in thru open gate, they will be equally divided on each side of the trough. By this method of slopping, you can slop thirty or forty pigs that will weigh 100 lbs. in a few minutes' time and without any waste of slop. The slop is evenly distributed the full length of the trough when the pigs are turned in, thus giving each an equal chance to "get their fill."



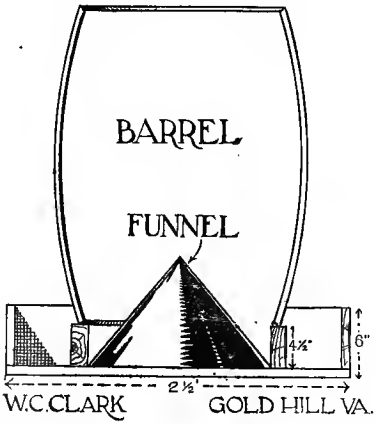


A Non-Freezing Slop Barrel



Make a trap door in feed room floor. Dig a hole in the ground large enough to place a barrel, the top of the barrel below the level of the floor. Fit this barrel with a tight lid which may be held in place with one strap hinge. It is an easy matter to put in ground feed and matter which may be easily stirred with a garden rake. Put one pail of hot water in the feed just before feeding. By keeping both lids fastened securely, the feed will not freeze in the coldest weather. If you have an engine in the same room, the hot water from the water jacket may be used in place of the one pail of hot water.

Barrel Self-Feeder



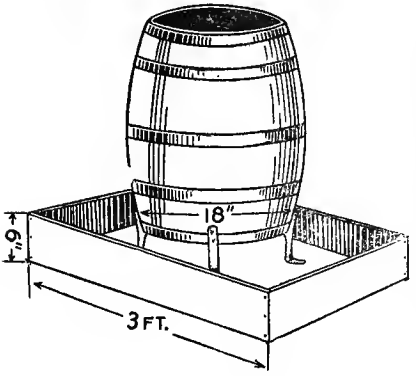
This self-feeder is made of a salt fish barrel, a tin lard can, and a wooden box 2½ inches square by 6 inches deep.

To build, knock both ends from the barrel and also both ends from the tin can. Crush the tin can into the shape of a funnel. Construct the box of any suitable material 2½ feet square, 6 inches deep and nail the funnel in the center, point up. Place the barrel on four strong hardwood posts the desired height from the floor (mine are 4½ inches). There should be a covering on the barrel to keep out trash and the weather.

This feeder has proven ideal on my farm.

A Barrel Self-Feeder

HUGH MULLIKIN — FRANKLIN IND.

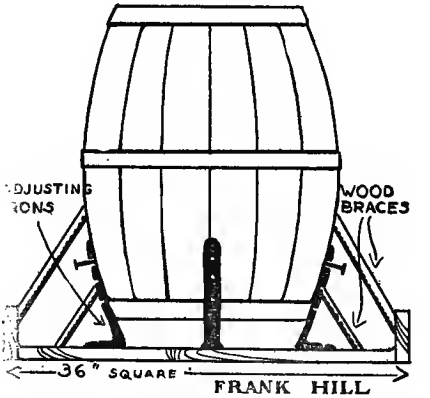


To make the self-feeder as indicated by the sketch requires an old barrel with both ends knocked out, a box three feet square, made of ⅞ inch or 1 inch material, with the side 6 or 7 inches high. Have four right angle iron supports made to elevate the barrel four inches from the box bottom. These should be bolted in to avoid coming loose. This is a very efficient self-feeder and will accommodate as many as nine big hogs. It is very cheap to construct, as nearly every farmer has the desired materials on hand.

Here Is Your Barrel Feeder

In constructing the feeder indicated in the accompanying sketch, make a platform 36 in. square, with four inch sides, setting a good oil or kerosene barrel in it. Have four strap irons made 1½ in. wide, 18 in. long, bent as shown, bolting one end to the platform and the other to the barrel. By having several holes in the iron next to the barrel, the flow of feed can be regulated to flow as desired.

This makes a good feeder for shelled corn and is cheap and durable. You can easily afford to have several of them. Each will accommodate fifty small pigs, as ten or fifteen can eat at one time. I am using this kind of a barrel feeder, and find it satisfactory in every way.



FRANK HILL
SHELLROCK. IA.

A Device for Feeding and Watering

We have had for the past few years a device for feeding and watering hogs which we have found both practical and convenient. It consists of a feed trough, a grass rack and a water trough mounted on two pieces of joist so as to form one end of the pen. Its construction is as follows: An ordinary V-shaped trough has the lower corner of each of its end pieces bolted to the upright, the uprights in turn being fastened to the beam forming the base. Notches are cut in the tops of these uprights to hold the corner of the swinging gate or panel. The bar is kept from jumping out of the notches by pieces DD. F serves as a brace between the uprights. Blocks E prevent the pigs pushing the gate and getting loose.

To feed pigs, the swinging panel is pushed far enough for the catch to get a "bite" on the side of the trough nearer

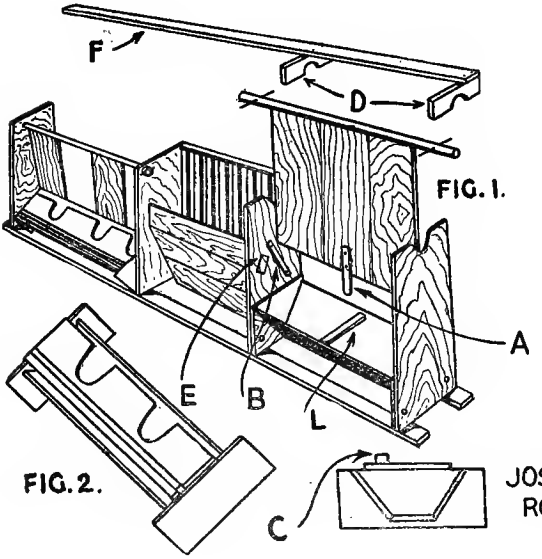


FIG. 1.

FIG. 2.

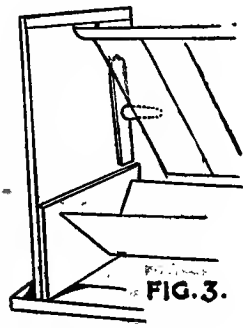


FIG. 3.

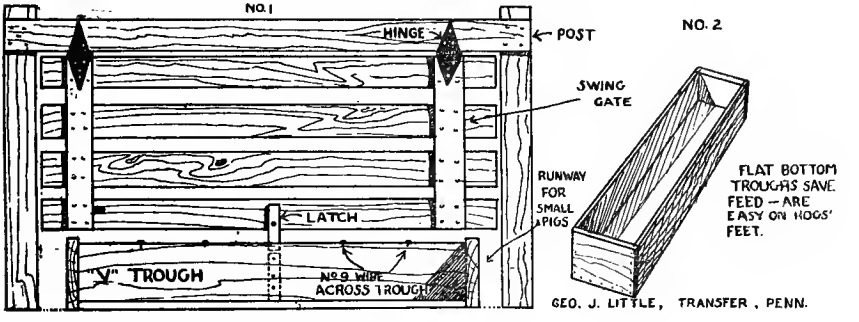
JOSEPH A. MAHONEY
ROCKLAN MASS.

the pigs, thus keeping them from interfering when filling. A small block A on the catch keeps the trough from being tipped by the pigs. After filling, the gate is locked forward so the pigs can eat. By pushing the panel way back and grasping the bar L the trough may be tipped outside for cleaning.

The grass rack is simple, being as shown in the diagram, boards on the outside and bars about 3 inches wide on the inside. The ends are the uprights of the feed trough and the water trough. The water trough is different from the feed trough by detail as shown in Fig. 3. The swinging gate shutting against bar C serves the double purpose of keeping the pigs in and preventing them from tipping the trough. It may be filled from the outside and pitched for cleaning in the same manner as does the feed trough. The farmers who build this arrangement will be amply repaid for their pains by the time and trouble saved.

A Feeding Trough Gate

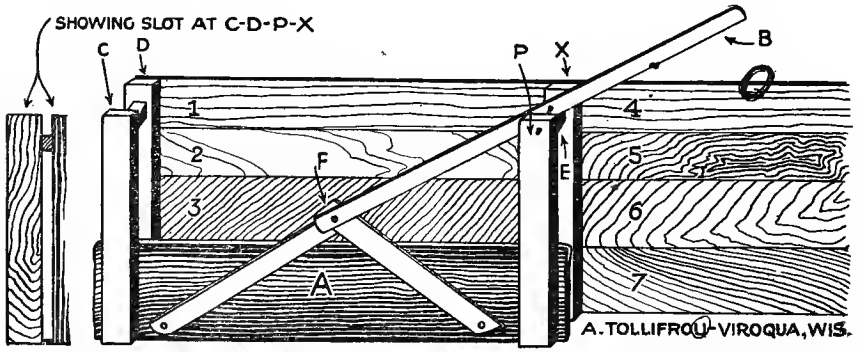
I have used the gate shown in the accompanying sketch for ten years, and find that where only a few hogs are raised it is much easier to care for them. By using this gate, all pigs get at the feed at the same time, and the feed may be distributed over the trough so that each may get his share. Incidentally, the use of this gate saves a lot of cussing when you are feeding the hogs in your Sunday suit. If the gate is fixed so that it will swing a little past the center of the trough, the hogs will not be able to get their feet in it. This can be done by bolting a V-shaped piece to the inside of the trough. I use only flat troughs in connection with these gates, as they save feed and are easy on the feet of the pigs. I stretch No. 9 wire across the trough to prevent crowding. The diagram gives full details of this gate and trough.



A Feeding Box

Any hog man knows the usual trouble experienced in trying to feed a bunch of hogs in the same pen with them. This feeding gate overcomes this evil. Trying to feed hogs as above mentioned always results in at least a pail of good, high-priced slop on the pigs' backs and on the ground. This device also saves the feeder's temper. The last and largest reason is that if the hogs are all kept off the feeding floor until the slop has been equally distributed in the troughs, it gives the runt of the herd equally as good a chance to feed as has the largest pig. This gate can also be arranged to keep the brood sows out and allow only the pigs to come in to the troughs by lowering board No. 3, as shown on figure, to the right height.

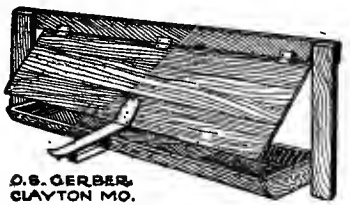
The gate "A" works up and down in the slots between the regular fence posts C-P and auxiliaries D-X and operated by the lever B, which can be fastened at O with a loop of wire. To avoid trouble, it is best to drop the gate A some time before the hour for feeding arrives. If the hogs get the habit of raising the gate, it can be remedied by a couple of hooks on the posts C-P.



A. Tollifrou's Feeding Gate. A is compact board gate working up and down in slots. 1-7 are boards of regular fence. F is gravity center of gate where lever B is bolted.

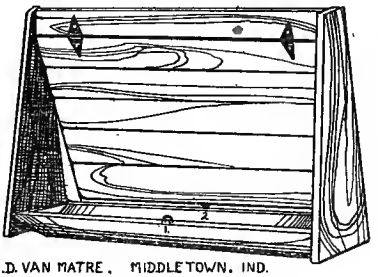
Feeding Trough

The man who slops his hogs or feeds them out of a trough knows that it is a difficult job. But this simple arrangement will be found indispensable after it is given a trial.



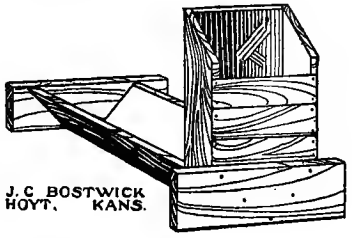
Build the trough in the fence of your hog lot. For the top, use a 2x8 plank. Then, place the gate so that it will swing clear, using inch boards. Nail a cleat on each post so that the gate cannot be pushed past the trough. The strap iron shown is so shaped that it will fit in the trough, and lock the hogs out while you prepare the feed, or clean out the trough, or allow them access to the trough. I consider this trough the most handiest device I have in my hog lot.

This Stops Spilled Slop



This device is a gate suspended over the slopping trough, and by means of a piece of strap iron with two loops in it, the gate can be so placed that the hogs cannot have access while it is being filled, when No. 1 loop is hooked over the edge of the trough. While the hogs are drinking, No. 2 loop is hooked over the edge of the trough. You will find this will save dirty clothes spotted with slop besides not a little "cussing."

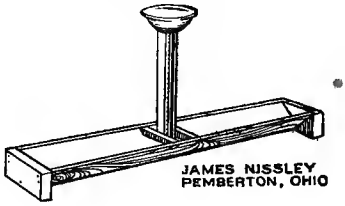
Another Good Hog Trough



I make a V-shaped hog trough any length up to 16 feet out of 2 inch plank, one 2x8 and one 2x10, then I make a box by using two pieces of 1x12 board 18 inches long and with a drawing knife trim off each side of the trough and nail on the two boards. Then nail the cross boards to each of the 18 inch boards and leave the end open thru which you pour the slop. This end of the trough should be somewhat higher than the other end so that the slop will run freely thru the trough. Do not put any cross pieces on the trough to be in the way.

I can feed forty shotes or 20 average size hogs in a 12 foot trough of this kind and never do I have to fight them away.

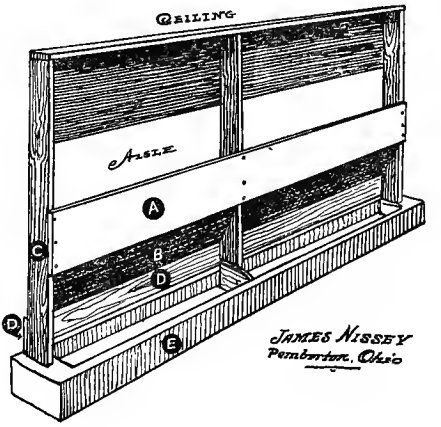
A Convenient Hog Trough



The hog trough shown in the drawing above is very convenient as it can be used near the fence or in a lot among the pigs, and the pigs cannot interfere with the hog man in pouring the slop into the trough.

The upright is a piece of wooden pump stock 3 or 3½ feet high nailed in the trough so as to let the slop out on each side. An old wash pan is nailed on the top of the pump stock with a hole in bottom, thru which the slop is poured into the trough.

A Hog House Trough



This hog house trough is for slop and dry feed, and I find it a feeding device that is very convenient, as it is always ready for use.

"A," as will be seen by the sketch, is a 1x12 oak board. "B" is a 1x12 oak board set in at an angle extending down between the posts from the bottom of board "A" to within two inches of the top and an inch or two below the aisle board "D." The board "B" directs the slop or dry feed into the trough.

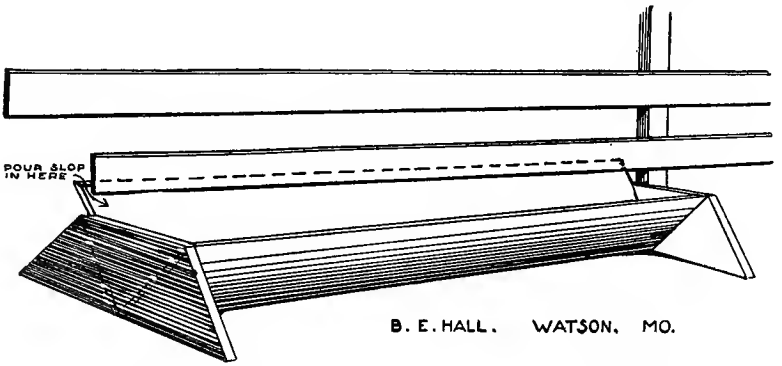
"C" is a 2x6 oak plank with hole in bottom to set on iron pin in cement base about four inches wide. This plank extends upward to ceiling. These posts can be set as close together as desired; mine are about 8 feet apart. I also have shift partitions, and use these troughs at farrowing time. The partitions can be removed and the entire floor can be used for feeding hogs.

"D" is a 1x12 oak board set with bottom edge a little over back edge of trough. This guides the slop and feed into the trough in front of the pig's nose.

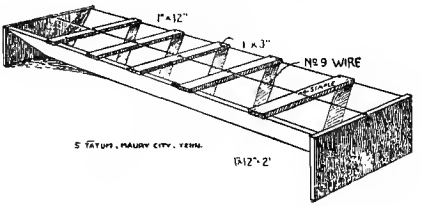
"E" is a cement trough nine inches on the aisle side, 12 inches wide and 6 inches on the pen side. The inside of the trough is made with a form, and is shaped before the cement sets; 1 to 3 cement and fine sand is used.

A Trough That Pigs Like

I have a hog trough that works to a frazzle. Every hog man knows the trouble he has slopping a bunch of healthy shoats when he has to go into the pen to pour the slop. With the high side of the trough sticking under the fence a few inches, the pail can be emptied without the operator being overrun with pigs. This is very simple, but at the same time very valuable.



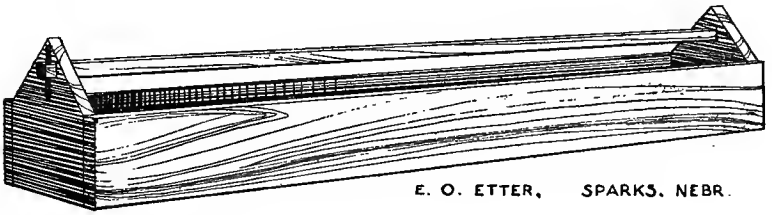
A Sanitary Trough



To make the above described trough take two planks 1x12 twelve feet long and nail them together in a half square. Take two 1x12 two foot long boards and nail to the ends. Nail strips 1x3 inches across the top. Attach wire as shown above. No. 9 wire will answer the purpose.

A Hog Trough

Material required for making this trough is as follows: Two 2x8 10 ft. long for sides; 1 2x12 14 ft. long for the bottom and ends; one 2x4 11 ft. long for top guard; one ½x8-inch button with couter pin; and four ½x16 in. bolts for ends of trough. Mortise hole in one end of two by four, use pin bolt in the other end. The guard may be easily removed in cleaning trough and prevents the hogs from wallowing in it.



E. O. ETTER, SPARKS, NEBR.

An Ideal Hog Trough

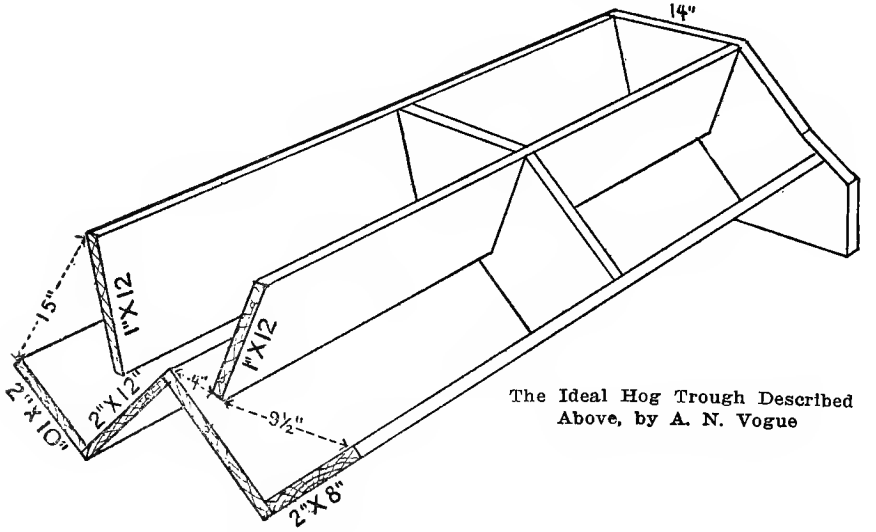
This hog trough doesn't need considerable description regarding its construction, as the sketch on the next page makes all details very plain.

The trough can be made any length desired, and the beauty of it is you need no fence around it, as the hopper extends the full length of the trough. You can dump in a bucket of slop at once without spilling and without getting it all over the hog's head. The hogs cannot get their feet in the trough.

The gable is bolted on the main trough or the V in the center, using

two wagon box straps. The main body is supported with braces made from old wagon tires; these are bolted on the inside of the trough. Two of them are sufficient on a ten or twelve foot trough, but three are necessary for the sixteen feet length.

This trough is especially valuable for the poorly equipped hog farm because it is very economical and sanitary, and there is no waste in using it. It can be moved about from yard to yard by tacking two fence boards on the bottom, using these as skids. Such a trough will last indefinitely if properly constructed.

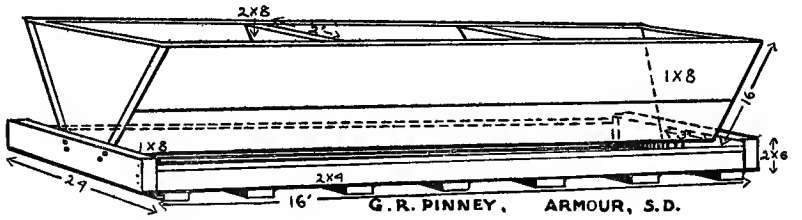


The Ideal Hog Trough Described Above, by A. N. Vogue

A Feeder for Hogs

I present a plan of a feeder that I have used for a number of years, finding it very satisfactory. It proves equally satisfactory with slop and dry feed. In feeding slop one can feed it without the pigs getting into the pail. Neither is it necessary to smear the pigs with slop.

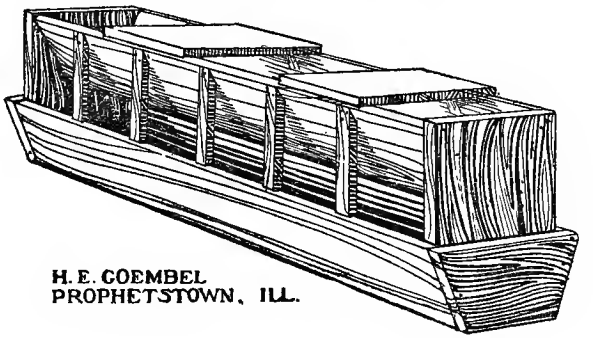
I make these feeders sixteen feet long. I use three 1x8's, D. & M., 8 in. for the bottom, with seven 2x4 22-inch long cross-pieces; two 2x4's for the sides;



and two 2x6's for the ends; four 2x8s two feet long for uprights in chute; and four 1x8s D. & M. eight inches for chute.

Have the lumber perfectly dry; cut the cross-pieces and nail the bottom boards firmly to them. Then nail the bottom to the 2x4 sides and fit in the ends. Shape the four 2x8 uprights eight inches wide at the upper end and three inches at three inches from the lower end. This makes the chute three inches wide at three inches from the bottom of the trough. Spike the end uprights to the end cross-pieces and toenail the two center ones to the bottom above the cross-pieces. Then the thing is done, and if care has been taken in its making, this trough should be water-tight with a little soaking. I always bore a hole in one end and set that end a trifle lower to permit cleaning out the trough and to allow the draining of rain water.

A Convenient Trough

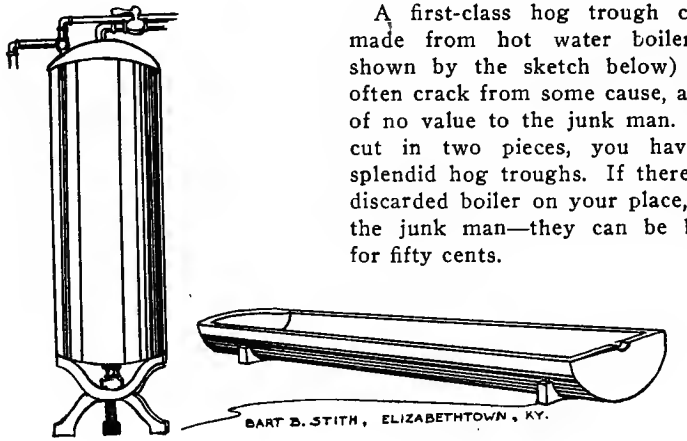


For feeding and slopping pigs I use a flat bottom trough made of a foot plank, for the bottom 2x6 nailed on the side of plank and slanted out a little at the top; fit in the ends and spike securely. Then cut two-foot boards 20 inches long to stand upright in ends of trough, and two 8-inch boards same

length as trough placed in "V" shape over trough and nailed to end boards with upper outside edge at upper corners of end upright boards and bottom of "V" about 6 inches apart. Then cut from 6-inch fencing pieces to nail to outside of "V" and notched to set on edge of trough 7 inches apart.

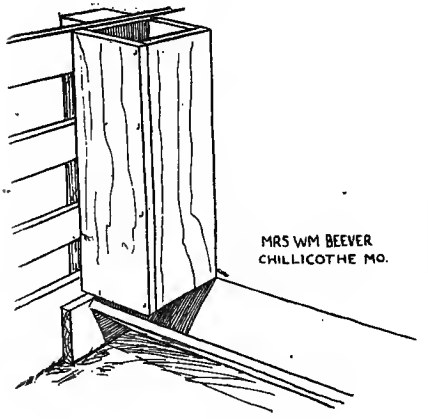
This gives each pig a fair chance and I find I have many less runts than any other plan I have seen. I have two of these troughs 20 feet long and that will accommodate 100 pigs. I place a couple of boards to walk on across the top of these feeders and do not need to "scrap" with the pigs, as I can put the slop in troughs anywhere through these "V" shaped boards the length of the trough.

A Water Boiler Hog Trough



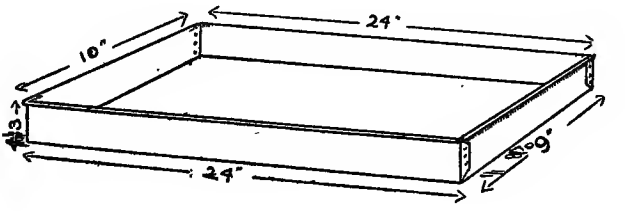
A first-class hog trough can be made from hot water boilers (as shown by the sketch below) which often crack from some cause, and are of no value to the junk man. When cut in two pieces, you have two splendid hog troughs. If there is no discarded boiler on your place, go to the junk man—they can be bought for fifty cents.

A Handy Slop Chute



Nail four boards, 1x10 inches 3 feet long toegther in a square. Stand one end in the trough and nail against a post securely. Pour the slop thru the chute into the trough. You can do this without getting the slop on your clothes.

An Individual Slop Pan

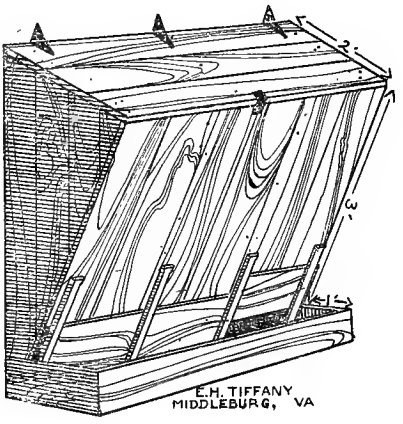


The sketch below shows an individual slop pan that I have used with great success for a number of years. It is made from 18 gauge galvanized tin, reinforced by quarter inch rods around the top, the tin being bent over the rod. I have had 800-pound hogs lie on this kind of a pan without

any damage being done, and I have used the same pan for eight years.

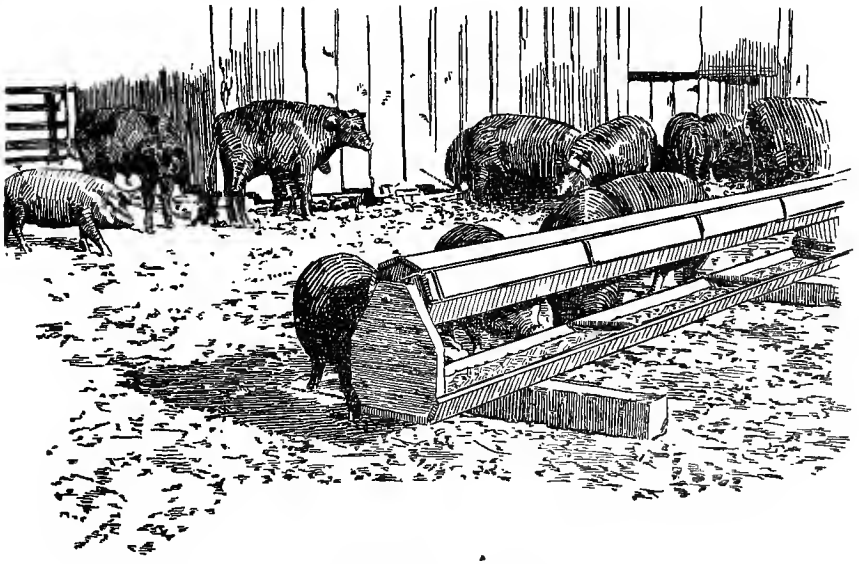
I use this pan quite extensively for sows and pigs, and I find that the pigs will learn to drink a week or two sooner than when they are forced to climb over the edge of a high trough. The pan is also very convenient to rid of ice when water freezes in it; just lift up and let it fall top side down and the ice drops out. It is also handy to carry from one place to another. I had the tinsmith make these pans to order.

A Home-Made Self Feeder



The sketch shows a roughly constructed self-feeder with three bins attached. This can be attached to either inside or outside of hog house. The three bins are separate, and each is provided with a sliding door to regulate the feed. I find the bins save both labor and feed, and help the farmer to make more economical gains on his hogs; 60 ft. of one-inch plank is the bill of material; time, two hours; material cost, about $2.50.

Revolving Hog Feeder

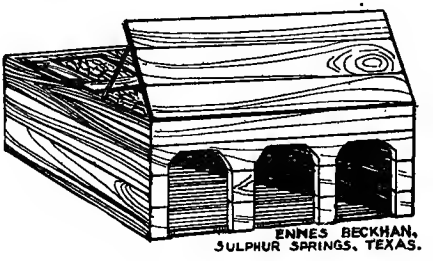


Fred Knop, Charter Oak, Iowa, has found this revolving hog feeder a very serviceable item of equipment

I evolved a revolving hog feeder this winter and it works like a top. It not only gives them feed, but gives each hog an opportunity to work for his living, and it is suprising to see them stand there for hours exercising for their food. It is the most useful invention I ever had on the farm.

The feeder shown is 16 feet long, the trough below the hopper is 18 inches wide and 2½ inches high. The feed hopper is made about 4 inches shorter than the trough so that it fits exactly between the two end boards. The feed hopper consists of eight 1x4's nailed on an octagon-shaped board, one of which is allowed to slide in order that feed may be put in. The octagonal boards are put in four feet apart, on which there is a square loop to provide for removing the loose board. Thru the center of the hopper there is a half inch gas pipe extending thru the end boards in holes cut 18 inches from the trough. A crack of about one-eighth inch must be left between the 1x4's to permit the feed to fall out when the hopper is rooted around by the hogs.

A Pig Feeder



I give you a description of what I call a first class pig feeder. It is an invention of my own and no doubt will be of value to others. I find it is a very convenient apparatus for feeding and handling pigs. This feeder is especially useful at weaning time when it becomes necessary to give special attention to the feeding of the pigs in order to prevent stunting. The holes in the front of the apparatus admit the pigs and keep the larger hogs out, thus keeping the larger hogs from mashing the pigs and also from eating the pigs' feed.

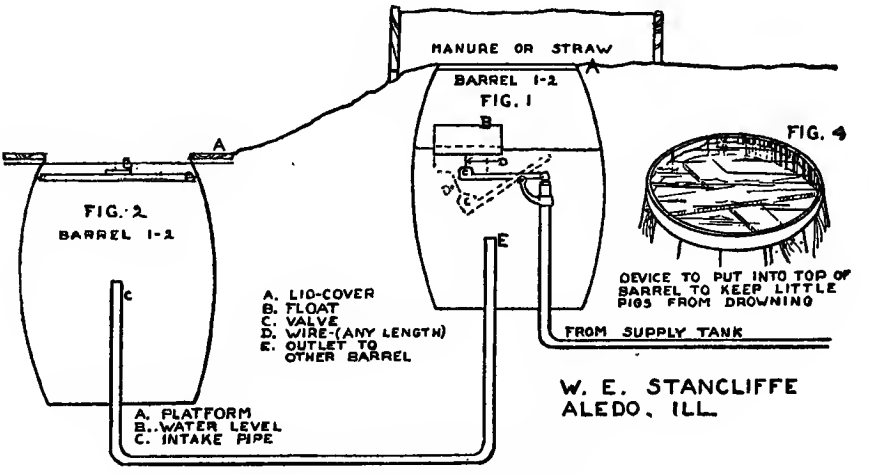
To use it, cut a small gap in the fence where the hogs are enclosed and put the feeder on the outside of the fence with the front of it in the gap in the fence. This enables you to feed the pigs without getting in the pen with the hogs. There is a drop door in front of the feeder which may be dropped down over the entrance to shut the pigs up if you want to catch them. The feeder also has many other advantages which I will not mention.

To construct it, first make a flat wooden box any size you wish. Be sure to have it large enough for a trough and have room for your pigs. Leave one of the flat sides open for the top and cover this with poultry wire, leaving a door through which to put the feed. Then cut your holes in the front of the box for your pigs to go through. Now make a drop door for closing the holes. This gives a wooden floor to feed the pigs on and may be moved from one hog pen to another. This, I think, is the handiest thing that I have ever seen for handling pigs.

Inexpensive But Practical Hog Waterer

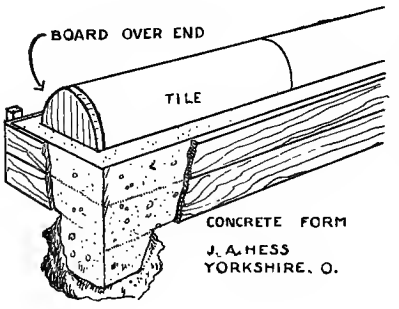
One of the handiest things I have on the farm for the comfort and good of the hogs is a very simple hog waterer which is inexpensive and practical and can be installed for four or five dollars. It is very useful the year round if placed in a protected place, and can be attached to any supply tank or common drinking tank. The barrel in Fig. 1 must have a small pen around it and covered with straw and stable manure to prevent freezing. On real cold mornings, it will be necessary to break the ice, and if there are many hogs, they will keep it open all day no matter how cold. A circular one inch board must be fastened to the cross pieces shown in Fig. 4 around the inside of the barrel to keep the pigs from drowning when small.

Barrel No. 2 can be placed anywhere, but a position where the lot fence can run across barrel is preferable, for in this way hogs can be watered on both sides. I have tried these for seven years and would not think of doing without this method of watering my stock.



W. E. Stancliffe's Watering System.

Cement for Water Troughs

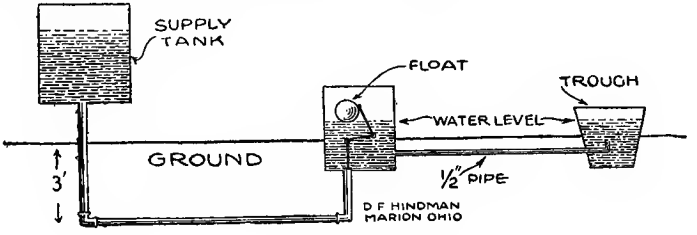


I want to tell of an easy way to make cement water or slop troughs Make your form of boards 15 in. wide and dig trough or foundation out 15 in. deep and as long as you desire the trough to be. Board up the form and slush in cement and sand three and one, and then use eight-inch tile for your form. After you get it half full of cement, lay tile in and put a board at end of tile. Fix the tile so that half of it is above the top surface of the trough. Slush in with cement, and leave tile in until the cement has set a little. Then remove the tile and you have a nice round bottom in the trough. I find such a trough very easy to clean.

Automatic Hog Waterer

In making this hog waterer, connect a supply tank on the farm which has fresh water in it always and has fall enough to get the water to the hog, with a common barrel in the ground by means of an inch pipe run three feet underground. Use a float in the barrel to regulate the flow of water into this receptacle. Then connect the barrel with a trough on the level with the water edge, using one about one foot wide, ten inches deep and about three feet long, so several hogs can drink at the same time. When desired, one end of the trough can be put through a fence and allow two bunches of hogs to drink from the same place at one time.

This is the best method of watering hogs that I know of. It saves its cost many times, and is especially convenient when you are away from home, for no matter how late you return, the pigs always have water before them.



Hog Houses and Pens

Sun Brooder for Early Pigs

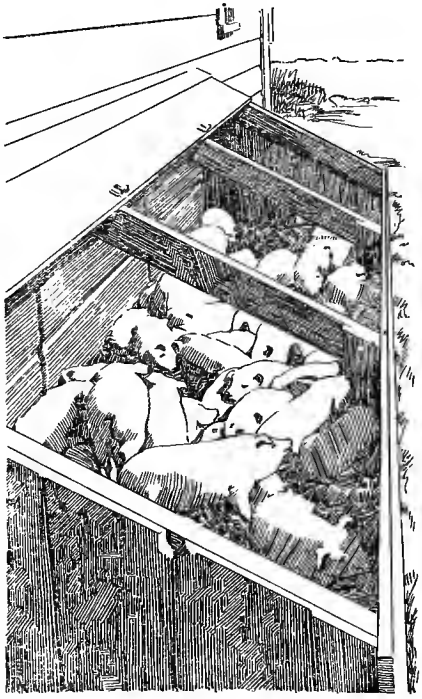
I have found the brooder shown by the drawing here to be very valuable to me, and I recommend it to every breeder of hogs whether he has a heated building or not, for there is nothing equal to the sun's rays for growing pigs.

A frame was built just like a hot bed, the lower side being one foot high and the upper two feet high. The frame was built tight so that no cold air could get thru the cracks, and storm windows were placed on top, hinged to the upper side so they could be raised a little if the air got too foul.

This brooder was fastened to the hog house on a level with the floor. A creep was cut, just large enough for the litle pigs to pass thru, in the wall of the hog house and plenty of clean dry straw placed in the brooder.

It was surely a pleasure to watch the little fellows stretch out in their warm nest. When the old sows would call them, they would all run to their meals and then back to their sun parlors.

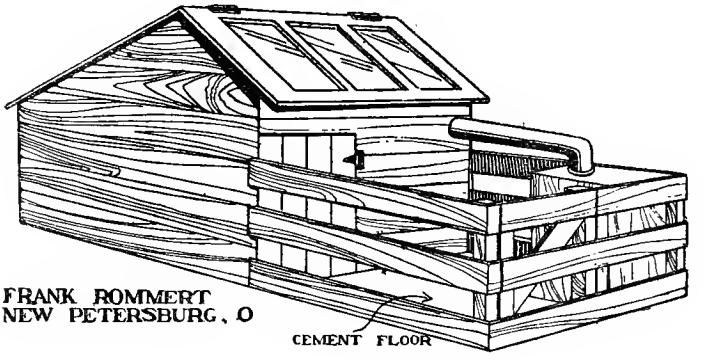
I believe it is worth any man's money to build something of this sort if he is farrowing pigs in early spring.



A sun brooder for early pigs used by R. W. Hodgson, Rushmore, Minn.

I regret that the pigs shown in the picture were white; it was taken before I came into the Duroc ranks.

A House That Keeps 'Em Warm in Winter



This is an illustration of a farrowing pen for sows in bad weather. The boxes in my opinion are about the right size, but can be made any size. The shed can be any length and partitioned to suit the builder. A concrete floor divided into sections (one for each stall) is built in front of the shed and the sow is fed on this floor. There is also a door in the rear of each stall where bedding can be taken out or put in while the sow is eating on the floor outside. The roof is framed with a ridge pole and the sash are hinged to this, being raised at the eaves when ventilation is necessary; concrete feeding floor is fenced and divided with gates, making a separate feeding space for each sow.

A house to store feed and bedding can be built at one end and may be provided with a stove or cooker to make warm slop and the smoke pipe may be carried through the shed high enough for the sows to walk under and connects with a flue at the far end. A drum in the pipe for each stall would keep pigs from freezing in any weather.

A Sunshine Hog House and Crowding Board

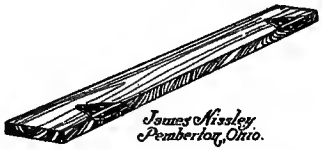


Figure No. 2. The Crowding Board

Fig. 1 shows my sunshine hog house made with 2x6 oak runner and 2x4 frame, covered with ship lap siding (14-foot siding is used). I find this a great house for little pigs, as they can always get a sun bath in the cold weather. This house is very handy for the hog man, as he can enter to clean it out without difficulty.

Fig. 2 shows a crowding board on T hinges, which I use in my hog houses. It can be let down at farrowing time and raised when the house is used for the larger hogs, making a great deal more room. It should be made from a board 1¼x7 inches wide, and the board should be of hardwood so that it will hold the screws.

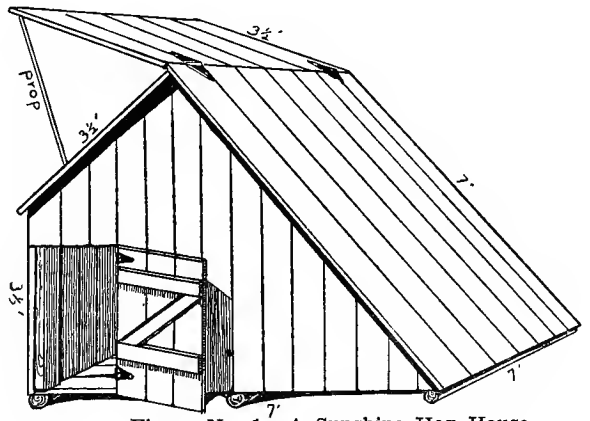


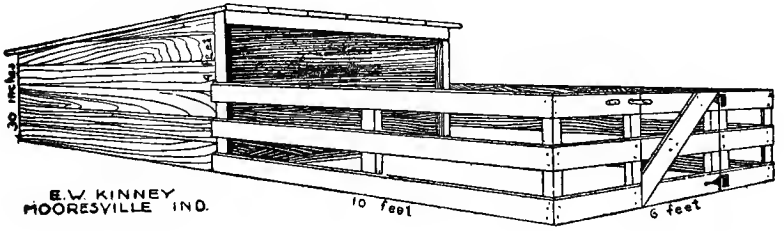
Figure No. 1. A Sunshine Hog House

Farrowing House With Pen

A farrowing house like the one shown in the accompanying illustration is built six feet square, using 2x4 studding for frame and siding, with six-inch flooring. The frame is made 30 in. high on back side, 4 ft. in front, which faces south and is left open. The other three sides are sided, making a good, warm house.

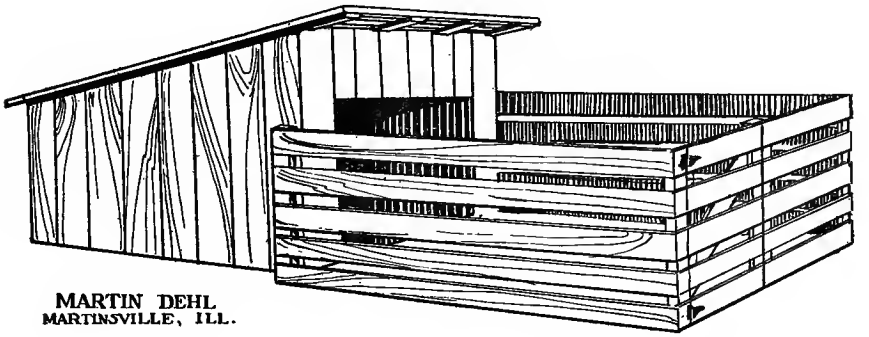
The pen is made 6x10 ft. in front of the house, with a door in the end to shut the pigs in to ring or catch them. To make the frame cut two posts 30 in. long, two 4 ft. long, and eleven nail ties 6 ft. long, spiking them to posts, three on the back, three on each and two in front, putting one at the top and one high enough for a sow to walk under.

I keep my sows in a separate lot, one sow in each, and use iron troughs only, which I think is the best.



House and Pen for Herd Boar or Farrowing Sow

I give a description and plant of a bungalow and pen which I think is not excelled for comfort and safety for the herd boar. The complete construction of same requires 450 feet of lumber, six fence posts 7 feet long, a pair of strap hinges, 10 pounds 8 penny nails, one pound spikes, two pounds shingle nails, 800 shingles. The house requires 150 feet of lumber 12 feet long for siding 60 feet lumber 8 feet long for floor; one plank 2x6 12 feet long, one plank 2x6 8 feet long for lower nail ties and sleeper for floor; the end nail ties serve for end sleepers; four 2x4s 10 feet long



MARTIN DEHL
MARTINSVILLE, ILL.

for rafters, the two outside rafters used for nail ties; one 2x4 12 feet long and one 2x4 6 feet long for plates and nail tie. The house is 6x8x6½ feet high at front, 4 feet in rear. Two feet down from roof in front a nail tie is set in and weatherboarding is used 2 feet long, except at corners where a board extends to floor, 1 foot wide, making the entrance 4x4 feet. Use 17 lath 14 feet long for shingling. Just inside building above entrance is a shelf 18 inches wide used for bale of straw and a sack of corn to feed.

The pen at the front is 7x12 feet. The two posts at building are just outside the corners flush with end of building. Posts are set 3 feet in the ground. Ten boards 1x6 12 feet long are used for sides of pen, and 5 boards 1x6 8 feet long for gate. If the building and pen are located permanently, nail boards to posts and hang gate to post. If they are to be moved about, the sides should be made as the gate and wired to posts. The gate should be hung on side gate so as to be folded for moving. To fasten gate, use wire at top and bottom. As a farrowing pen this serves the purpose admirably.

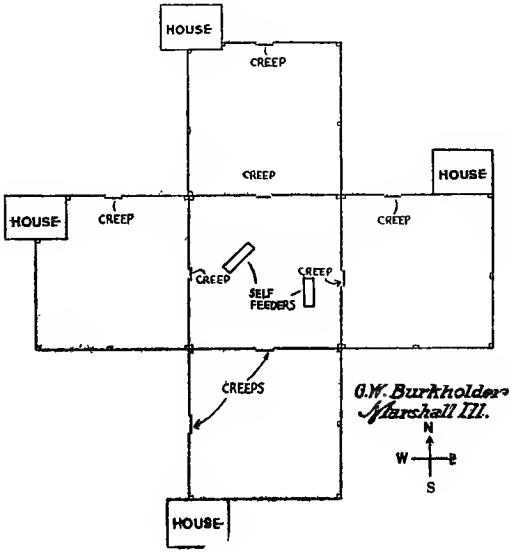
The boar pen should be placed in a large lot on opposite side from where he is fed, facing south. I move the buildings and pen where needed for sows to farrow in and sleeping quarters for hogs. When I leave home I leave the boar locked in pen and then I know where he will be when I return.

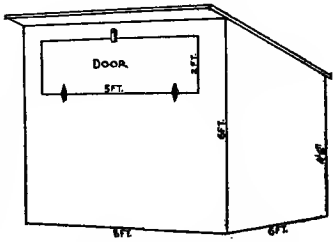
Houses and Pens for Sows and Litter

When farrowing time comes in the spring and we have a large number of sows to take care of, it is always quite a problem to figure out some method of handling them.

The plan that I am presenting has been used a great many years with success. The illustration shows my arrangement of houses and pens.

Take 6-inch fencing plank 14 to 16 feet long and make a square pen. For posts I use 2x4s, standing them on end and nailing boards on sides, making the pen four boards high. On this pen I join four others, as shown by the diagram. On the outside corners of the four pens I place the houses. This arrangement makes room for four sows that will farrow near the same time. Each sow will have her own pen to run in, and they will be quite a distance apart. The hog houses will be set with the high side to the south. (I like the house with the roof sloping one way.) The high side of this house is 6 feet and it is 4 feet 6





HOG HOUSE

inches at the eaves, making an 18-inch fall. I use the Rubberoid roofing.

The floor space is 6x8 feet with a door on the south side just below the roof. This door runs across the building and is 5 feet long and 2 feet wide. The door can be let down in nice weather, which will allow the sun to shine on the pigs. The door thru which the hogs run should be at the east end of the house.

The house is built on two 4x4 runners and can be moved from place to place. This plan of hog pens can be moved about from field to field along with the houses.

It will be seen by the sketch that there are creeps on all four sides of the middle pen and on one side of the four outside pens. At an early age these pigs will go into the lots with their dams and very soon will find each other and have their little scraps and then make up. It will be an easy matter to get them to eat in their pens, and my, how they do grow! Raising pigs with such an arrangement of pens and houses will eliminate many of your runts, as the litters will know their own mothers, which prevents their robbing one another.

The creeps on the outside of the outer pens is to allow pigs that may be running in the same field to go in and out. This will save a great deal of work for hog men, especially those who have recently gone into the hog business, as the new man is usually crowded for room.

For hauling my slop and feed to the sows and pigs, I use a small sled with a barrel fastened on it. This is drawn by a horse.

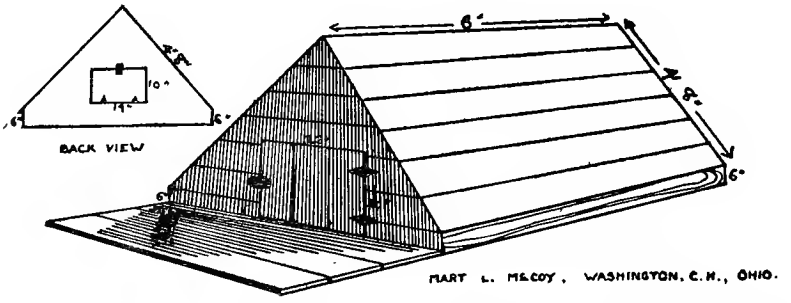
Colony House and Pen for the Pigs

This hog house and pen has, in my estimation, been most satisfactory and economic in all ways.

The box is made of ⅞ siding. First make a square base 6 feet by 6 feet and 6 inches high. The slant and beam are made of 2 x 4 studding. The height of the box from the ground to the cone of the roof is four feet. The front door should be cut 22 inches x 20 inches and hang so that it will swing around to the right. A small door 10 inches x 14 inches is cut in the back 18 inches from the ground. This, opened in spring and summer, furnishes a chance for air circulation in the house. Wooden buttons hold these doors shut.

Make a platform of flooring 6 feet 4 inches x 6 feet 4 inches. In the winter and spring this should be set right on to the ground, naturally drained, so that no wind or air currents can circulate under it to keep the floor cold. Place the box on this platform and bed with straw. The approximate cost of this box and platform is eight dollars.

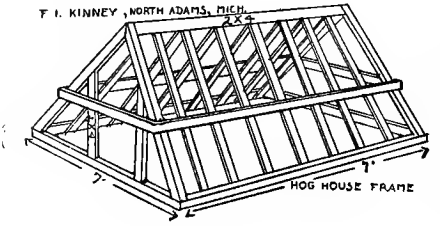
Next, construct a board run 5 feet x 6 feet 6 inches in front of the box



of any boards which one happens to have handy. This keeps the pigs off the ground and yet gives them access to some exercise, air and sunshine. A fence of rough boards of any kind in front and at the side of each box keeps each sow and litter separately. I have had as many as twenty of these houses and pens in one colony. I raised 225 pigs last spring and my loss was very slight.

These boxes are very easily kept free from vermin and filth. The processes of feeding is not such a bugbear with this arrangement. I have a slop cart which I drive along in front of each box or colony. Another good feature is that it is portable and can be changed to other quarters without much trouble, and can be used at all seasons of the year. I have always had better success in saving and caring for my pigs in this way than in any other.

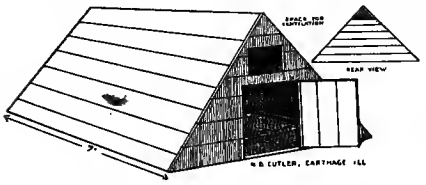
A Cheap Movable Farrowing House



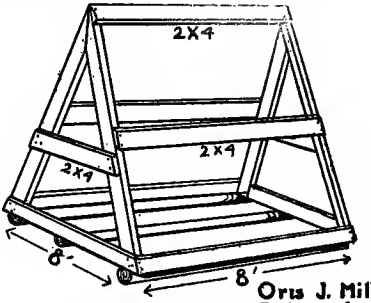
This hog house is 7 feet square on the ground with two uprights 2x4 at each end and one running around the outside about half way up the side, so the sides cannot be pushed off from the inside. Leave a ventilation hole at each end of the peak. This could be closed in extra cold weather. Cover this with matched lumber.

The Wigwam Hog House

For an ordinary sow lay a floor 7 feet square on four hedge poles. Most any kind of lumber will do as it is in the dry. Nail the roofing boards on the sides the way the floor poles run, and extend them 2 inches over the edge of the floor. Use long nails to go thru the floor boards to catch in poles. About the middle on the inside nail a 1x4 to hold the boards together. End up the back end with ship-lap, leaving a 4 or 5 inch opening at the top for ventilation. Set up 2x4's in front end as wide as you want your door. Then put on ship-lap to the height you want the door. Cleat and saw out the door. If more sun is desired you could cut window above the door. On back end, on the inside, nail a 2x6 across about 10 inches from the floor, so the young pigs can get behind this to be kept from being crowded by the sow.



Portable "A" Shaped Hog House



Orus J. Miller
Delhi, Iowa.

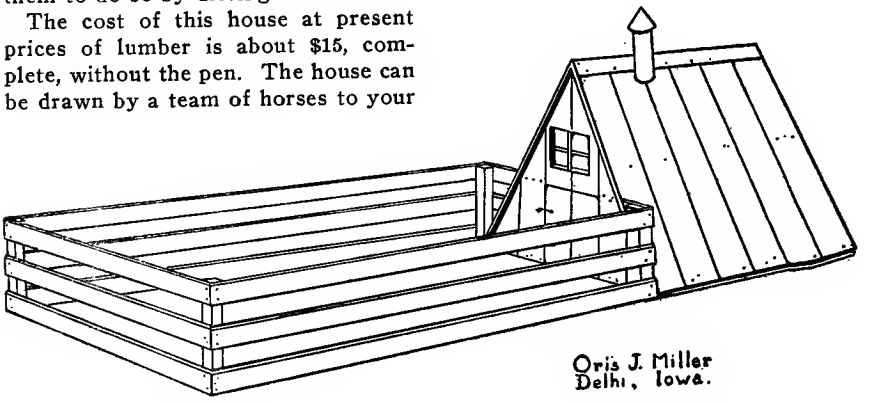
The two drawings show the details of my A-shaped portable hog houses in which my brood sows farrow. I am using these in my business for early farrowing, and I find that a larger percentage of pigs can be raised with less trouble to the breeder.

Such houses are easily constructed, cheaply built, and with proper care will last for years. They can be lined up in a row and banked with straw on the back side and in between the houses which makes them very warm even during the coldest days. A gal-

vanized ventilator and window makes the house healthy for the dam and litter.

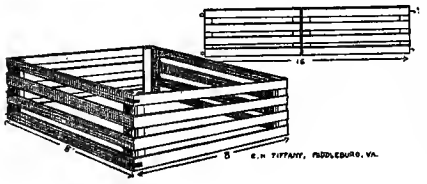
When the pigs are a few days old, the pens in front may be used by the youngsters, which insures that they receive a good amount of fresh air, sunshine and exercise. If my pigs fail to take exercise in these pens, I force them to do so by driving them.

The cost of this house at present prices of lumber is about $15, complete, without the pen. The house can be drawn by a team of horses to your warmest location. I find that they are splendid for brood sows to sleep in before farrowing. Three or four can sleep in each house, and they will not pile up on cold nights. The only trouble with this house is that there are not more of them in use. Build one of them and you will build more.

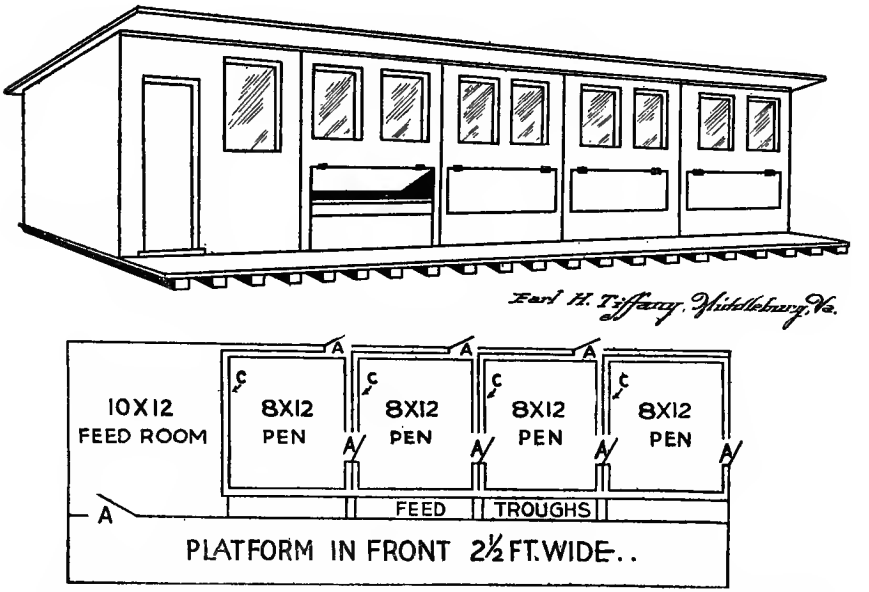


Oris J. Miller
Delhi, Iowa.

A Portable Lot



The material required to make this portable fence or lot is sixteen pieces of plank 8 feet long; 6x1 inch for the sides; eight pieces of plank 3 feet long, 6x1 inch for the corner strips, four pairs of hinges, four sets of hooks, staples and nails for the two divisions or whole lot.



AAA—doors; CCC—offset 8 inches wide around pens to prevent pigs from being mashed. This house is used by Earl H. Tiffany, Middleburg, Virginia.

Farrowing House

The building as sketched above is spendid for winter farrowing. Facing the south, it is comfortable in the coldest weather; it furnishes plenty of sunshine, good ventilation and never becomes damp. The building is 50 feet long and 12½ feet wide. The material requirements are 1,200 feet of plank and 500 feet of 2x4s. The cost is about $125.

Farrowing Pen and Colony House

A properly designed and well built farrowing pen and colony house is well nigh indispensable on a farm where hogs are raised.

The average pen designed to fill this need is too cheap, dangerous, and a makeshift. There are few farms where a good farrowing pen will not pay for itself each season. One good pig six months old will pay for one twice over.

The colony house and farrowing pen illustrated, we think, cannot be improved on. It contains about every good feature we have ever seen, and is just as we have used it in recent years. It gives the maker latitude as to length, width and height. A pane of glass can be put in the peak of the gable or not. The house should be well built of good material and painted, as it is a valuable piece of hog farm furniture.

The essentials are:

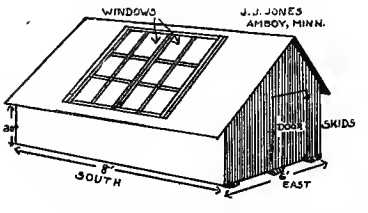
Foundation—Skids of 2x4x8 feet, laid flat and rounded up at the ends.

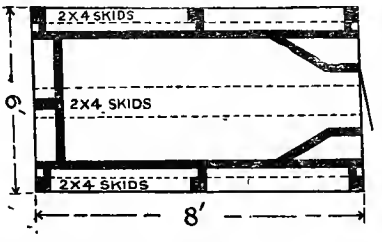
Floor—One inch sound boards, no unsound, knots, shakes or sap.

Uprights—2x4s, three on a side, and one at middle of rear end and one each side of end door. 2x4 plates and 2x4 in roof peak.

Enclosed—With six-inch drop siding. Do not use wider siding, as it will shrink and allow cracks between boards.

Roof—Rain and windproof. We use good matched pine flooring. With the opening in the end to the east, the door in the roof will be on the south side. You cannot very well make this door too large, as we want lots of sunlight. The caretaker can enter thru this roof door without





J. J. Jones finds this farrowing pen combines all good features.

the danger of being caught in the doorway by an excited hog rushing in or out. The roof door permits sunlight in all parts of the pen and easy access at all times, and this is especially valuable at farrowing time and feeding time, and means a considerable increase in percentage of pigs raised to litter.

While using this style pen, we had an average of nine living pigs per litter. We made a considerable move and were permitted the use of a bunch of A-shape pens. Our sows dropped just as many pigs, but we raised on average of two less pigs to the litter. This multiplied by sixteen sows meant a considerable loss. We have listened to men of wide reputation as hog breeders ridicule the idea of a guard rail on the theory properly fitted sows need no attention at farrowing time, that the natural sow mother will go away into the woods and heap up a pile of leaves and come home in a few days with a 100 per cent litter.

We have seen that done, but we are not now raising hogs under those conditions, but a highly specialized hog under artificial conditions that requires that the herdsman get all around the sow and, if need be, close the door after him, and hang up his lantern and camp for all night thru rain and snowstorm.

Nail 2x4 pieces horizontal to the studding, the pieces 7 and 8 inches up from the floor. Nail guard rail to this as per cut. Rail can be of 2x4 stuff. This pen can be moved around readily.

A Portable Hog Pen

This is a portable pen that can be taken down in sections as shown herewith. To make this pen requires no special mechanical ingenuity, but only a little care and plenty of "elbow grease." These pens can be made in any size desired, but the description given here is for a pen 9x12 feet, made in two separate pens by the addition of a cross section. To make this pen will require the following bill of lumber, which should be dressed and sized so as to make a neater fit:

12 pcs. ¾ inch by 5½ inches by 12 feet, for boards.

18 pcs. ¾ inch by 5½ inches by 9 feet, for boards.

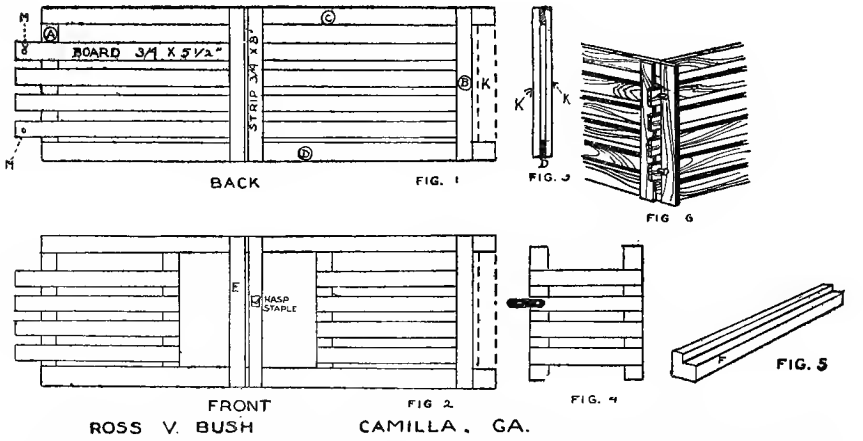
44 pcs. ¾ inch by 3 inches by 44 inches, for stiles.

4 pcs. ¾ inch by 3 inches by 89½ inches, for gates.

8 pcs. ¾ inch by 5½ inches by 84 inches, for gates.

4 pcs. 2 inches by 3 inches by 44 inches rabbeted, 1 inch wide and 1 inch deep.

To make this pen for the back, place the top and bottom boards on three inch strips 44 inches long (A and B), having the left hand ends above and flush with the stiles, the right hand ends being under and extending 4½ inches beyond the stiles.



A Convenient Portable Pen that Ross V. Bush of Camilla, Georgia, finds mighty handy around the hog farm

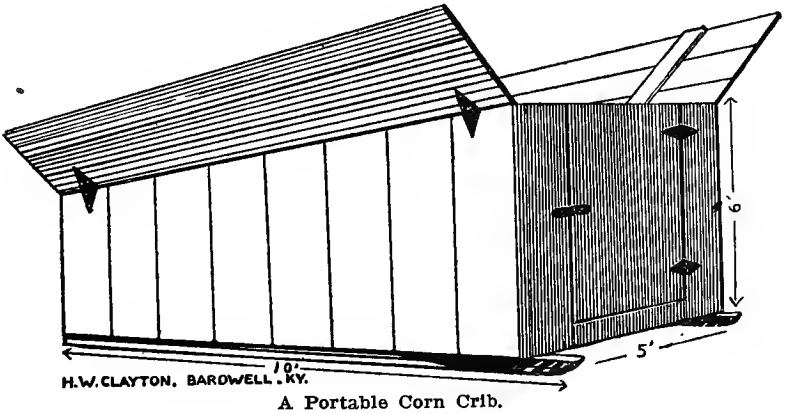
Next place the other four planks on the stiles and space them as follows: Between the bottom board and one above it one inch, between the top board and the one below it four inches, and two inches between all the others, this gives a total height of 44 inches when completed, the left ends of the four boards must extend 4½ inches beyond the stiles and the right hand end must be flush with the stiles, mark the distance from outside to outside of the stiles A and B, set back three-quarters of an inch on each side and place two more stiles here, so that there will be a space of an inch and one-half between these stiles, saw out top and bottom boards between these stiles, making them flush with the stiles, now nail three inch strips on the remaining right hand end as shown in Fig. 3, this will give one and one-half inch clearance for the side pieces to lock into as shown in Fig. 6, this completes the back of the pen. To make the front, proceed as above except allow 24 inches or less for the doors on either sides of the two stiles in the center, and it will be necessary to use two additional stiles to nail the planking to, as shown in Fig. 2. Next take four pieces 2 inches by 3 inches rabbeted 1 inch deep and 1 inch wide, nail them flush with the top and bottom boards and have the rabbeted side next to the boards, this will give a clearance for gates of 40 inches. Allowing one-half inch for ease of operation, take two pieces ¾ inch by 3 inches by 39½ inches, stand them upright in the rabbeted places and nail board ¾ inch by 5½ inches by 24 inches across them. Space them as are the boards in the pen with the addition of hasps and staples on gates and center stiles, this completes the front.

The side and center partitions are made exactly as are the backs, excepting that only one stile is necessary in the enter. This will give added strength and prevent the boards from warping. After the pen is completed, place the right hand ends in and at right angles to each other, having the front and back parallel and the center and side partitions at right angles to them. After the pen is put together, bore holes in the left hand ends so as to fit pegs behind the stiles, this locks the pen and makes it stable. These pens can be built in one, two or any number desired, and any number of pens can be added as needed, they can be built in an "L" shape, "T" shape or in rows with a lane of any desired width between them.

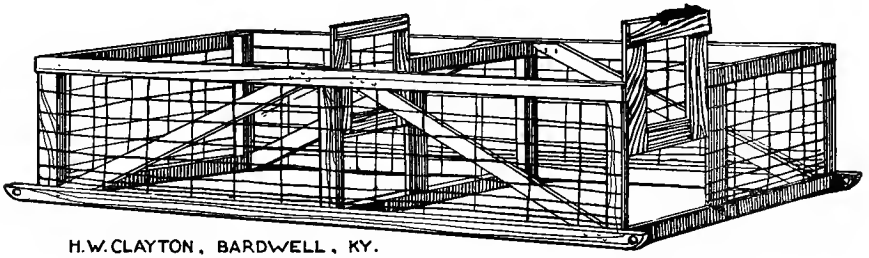
A Portable Corn Crib With Feeding Pen

I will give you a description of two devices I use in connection with each other.

One is a portatble corn crib, shown by the sketch, made as follows: For the foundation, have two 4x6 ten feet long, slope one end of these like a sled runner, place these two runners 5 feet apart; a cross piece 2x6 five feet long should be placed at each end of the runners, and mortised into the runners. A ¾ inch hole should be



A Portable Corn Crib.



H.W.CLAYTON, BARDWELL, KY.

The Feed Pen that H. W. Clayton uses in connection with his portable corn crib.

bored in the middle of the 2x6 that is placed at the sloping end of the runners for a clevice, These should all be of some kind of wood, and should be covered with good solid flooring. The framing should be about six feet high and should be of some kind of durable braced. Have a door in one end of the crib *18 inches from the floor* and extending to the top. The framing can be covered with any light material you have at hand, but iron roofing is best as the crib can be made rat proof with this by covering the floor also with roofing.

The roof can be made of any kind of light material and should be made on hinges, so that it can be raised when you get ready to scoop your corn into the crib as this is much easier than throwing it in at the door. This crib will hold 50 or 60 bu. of corn in the ear, and when empty, can be drawn by two horses anywhere about the farm.

The Feed Pen

In connection with this crib I use a portable feed pen made on two runners. These should be 4x6's 20 or 25 feet long and should be placed 8 or 9 feet apart, depending on the width of the gates thru which you will want to carry this pen. These runners should be sloped at both ends like sled runners. A 2x6 cross piece should be placed at both ends of the runners and one in the middle; these should be mortised into the runners. A 3x3 inch post 38 inches high should be placed at each corner of this foundation and one in the middle of each of the runners. One post should be placed 18 inches from the corner, this is for the door.

A 2x4 railing should be placed on top of these posts running all the way around the pen, then, the posts should be well braced. Now take heavy grade 6 inch stay wire, 32 inch American wire fencing, and stretch around this, leaving the 18 inch door as described; this should be an adjustable door made to lower and raise to admit either pigs or large hogs. There should be a partition in the middle of this pen, with a door like the one in the end. This pen, like the crib, can be drawn by two horses to any place on the farm. By keeping

the crib and pen close together, having them on the thinnest spots in your pasture, and moving them often, they will be found to be very handy. You feed your corn where the land needs it least. If you are pasturing cattle or horses in the same field with the hogs, this pen protects the hogs from them.

If you want to feed the pigs away from the sows, adjust your door so they can enter the pen, and the sows will have to stay out.

I also keep bran, shorts and tankage in this crib when I am feeding it and have troughs in the pen to slop the pigs in.

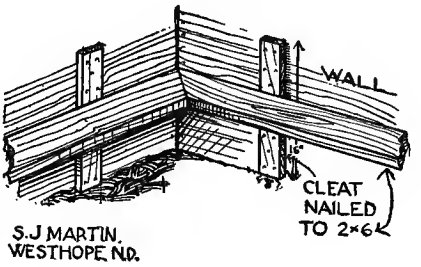
I believe this is a very simple, cheap and practical device.

A Pen for the Farrowing Sow

At this time every effort must be put forth to raise more pork to win the war, and whatever is good in times of war is good in times of peace. To raise more pork, the first thing is to farrow the pigs, save their lives, and get them well started in the world before we can make pork out of them. To do this we must first have a good farrowing pen, one that the sow cannot tear to pieces just before she farrows and get boards and nails strewn around her pen.

I use a pen about eight feet square with a wood floor and tight sides so the sow will not see any object that might appear, while she is farrowing, which may cause her to jump up and run over and kill her little ones. On the inside of the pen, about eight inches from the floor, I put a 2x6 plank around all four sides, horizontal, to prevent the sow from lying against the wall, giving plenty of room for the little pigs to run under the 2x6 and get out of the big awkward mother's way when she gets up or lies down.

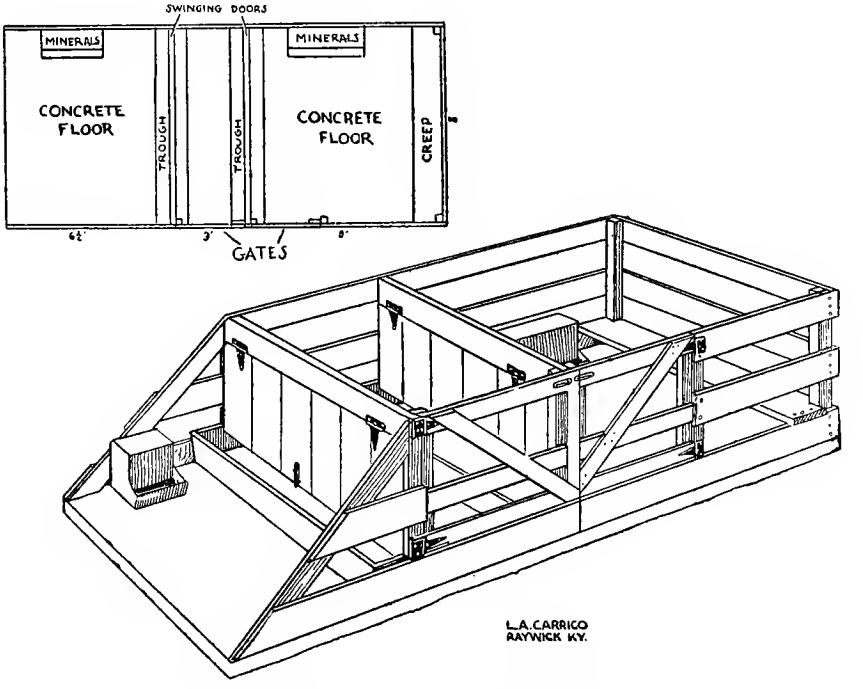
The illustration shows cleats 8x16 inches nailed on the edge of the 2x6 planks. These cleats are then nailed to the wall with the planks bolted together at the corners and extending out into the pen with run-way for little pigs underneath. By not driving the nails in



the cleats all the way in, the planks can be easily removed and used again and again.

Have the trough fast so she can't root it up and perhaps kill the pigs.

Portable Pen For Sow and Family



I have drawn a rough sketch of a portable and sanitary feeding floor and pen for sow and litter. The pen is intended to permit the litter to be fed without interference from the dam. The central alley as indicated by the diagram is for the convenience of the feeder, and the swinging doors over the troughs permits him to give slop without interference thru the greediness of the animals. The troughs are indicated immediately under the swinging doors which cross the pen in the diagram. The sow's feeding floor is not enclosed. I provide self-feeders for mineral matter in both ends of this floor. The floor of this pen is made of plank and is covered with a layer of concrete. The outside boards are built flush with the floor to prevent wasting of feed. At the rear of the pigs' feeding floor, the

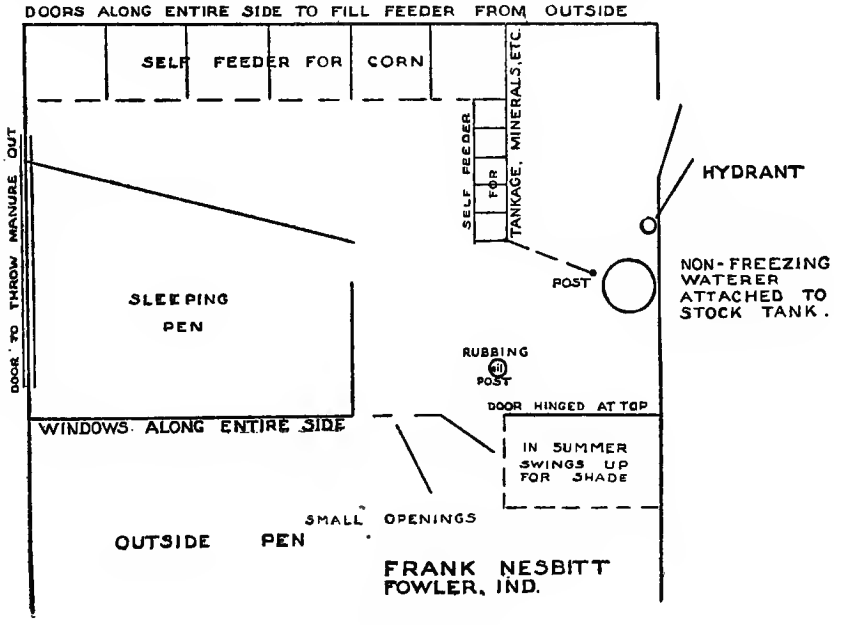
bottom board is bolted to allow a creep for the pigs without permitting the sow to enter.

This floor and pen may be easily moved about, and when set close to the stationary fence of a hog lot, affords a very convenient way in which to satisfactorily care for the sow and litter.

A Well Arranged Feeding Shed

The sketch herewith shows the plan of my feeding shed which I built for finishing market hogs.

The shed is 32 feet long, 16 feet wide and 8 feet high, with windows along the south side and doors on the north for filling the feeder. The feeder has capacity for about 100 bushels of ear corn or twice that of shelled. The building is large enough



to accommodate 20 225 pound hogs without crowding. I have an automatic water fountain with lamp attached to water tank. During the coldest weather this keeps the chill off the water.

The ends and south side of the shed are made of old lumber, the west end being covered with old tin roofing on the outside of the lumber. I have a door on the west of the right height for the manure spreader, and I shovel the manure direct into the spreader.

The floor is made of concrete thruout constructed by throwing in a lock with well-tamped cinders as filler, then covered with one or two inches of cement. The sleeping pen is kept well bedded. This is my third year with this kind of floor, and I consider it far superior to dirt or board floors.

I built this shed myself during spare time, and the entire cost was less than a hundred dollars. I consider that it will pay for itself every year in the labor saved.

My hog house proper is fourteen feet from the shed with concrete floor between.

A Modern Hog Plant

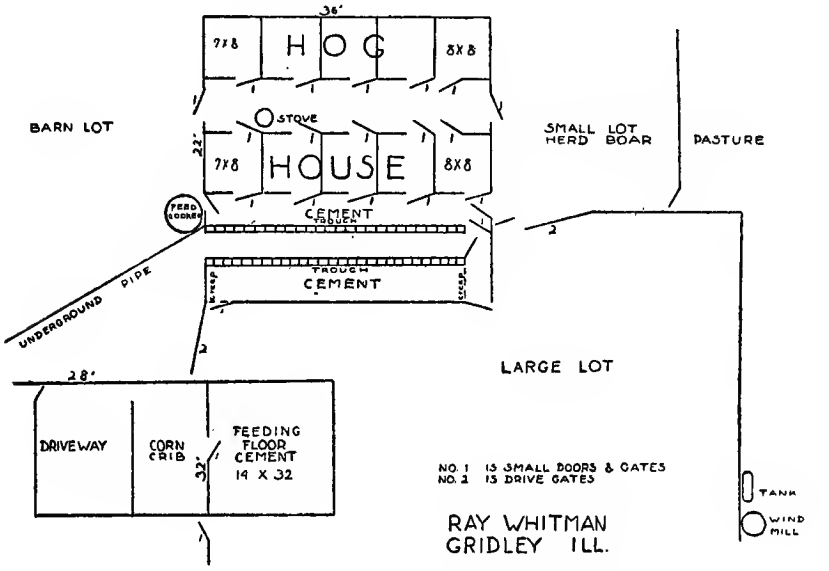
The attending drawings of my hog plant are planned entirely by myself and they have given a great deal of added pleasure to me in my hog operations.

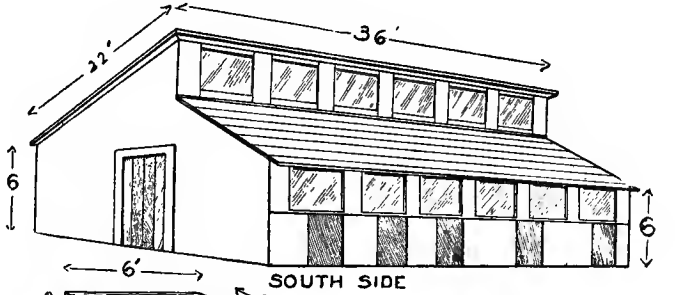
The hog house is 22x36 feet and is built on the university plan. It has a double floor and shingled roof and makes a very attractive improvement on the farm.

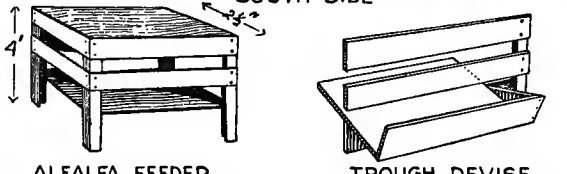
The slop pen is of my own design and has a cement floor slanting to the south. By my trough device, the slop can be fed very much more rapidly without wasting and without plastering the heads of the pigs. The slop cooker is at the end of the alley and is very handy. The corn-crib is close, and the feeding floors are cement and very easily cleaned. In each of the farrowing pens a guard rail of 2x4 is placed about 7 inches off the floor to prevent the sows from crushing the pigs.

The alfalfa feeder is built like a box on legs, with the bottom board off all the way around and with a lid covering it to keep out rain and snow. It can be used for either baled or loose hay. The drawing indicates the dimensions.

Should any further information be desired regarding my equipment, I would be glad to answer inquiries.





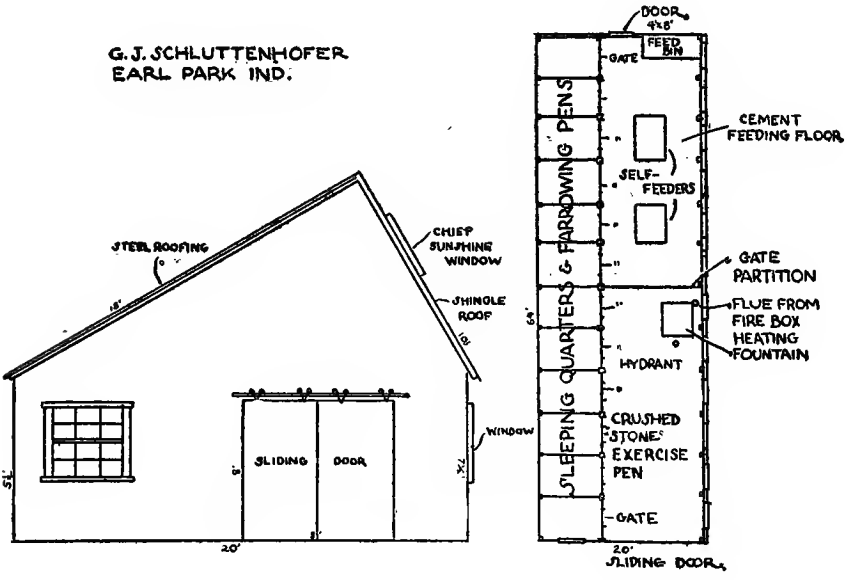


ALFALFA FEEDER
RAY WHITMAN

TROUGH DEVISE
GRIDLEY, ILL.

Suggestions to Solve Your Housing Problem

A hog house that I made for our farm is shown in the accompanying sketch, 64 ft. long and 20 ft. wide, standing east and west. The north side of the roof is tight shiplap sheeting with steel roffing on it, the south side is more sloped and not as long as the north, and is shingled, with 12 chief sunshine windows in the roof which admit the sun just where you need it in the winter time, in the farrowing pens. These pens are 6 x 8 ft. on the north side of the building, and each has a gate in it so I can let the sows out to exercise after the pigs are a few days old. The roof is 5½ ft. high on the north side, and in the pens so that a man can stand up and easily clean out the pens thru openings made in the tight shiplap on the north side. The south side is 7½ ft. high to plate and has 12 windows 3 ft.



from the ground, and 12 sunshine windows in the roof on the south side. I also have one window and a 4 ft. door on the east, and one window and an eight foot roller door on the west.

I have self-feeders and it is much easier cleaned out. False bottoms are used in the cemented pens, as cement is too cold for pigs to sleep on. In the other half, I have my pens made of 1x4 boards and the bottom 2x12 plank, with the rest of the space for a run for the hogs in bad weather, which is of fine crushed stone. A hydrant is in the middle of the house, providing pure, fresh water in fountains from a gravity system tank in the attic of my house. Having the fountains saves a lot of work, and worry when you are away for some time. The one I use can accommodate a fire in cold weather to warm the water; that is a great thing, for the hogs, as you know, won't drink any more cold water than they have to have.

There is also a feed bin 6 x 8 in. in the hog house which I keep filled with shelled corn and oats for them and on stormy days I don't have to get out of the house to care for my stock. There is also space reserved for straw bedding and as a rule I clean out the shelter every other day.

It has been my custom not to let my boar run with the sows during the breeding season, but put him in a breeding pen on the north side of my house, made of 1x6 boards 4½ ft. high, 68 ft. long and 10 ft. wide, with a bed inside the house.

I set poles every six feet around the outside, tightlap up and down, which makes it warm against the winter winds. The catalpa and white ash poles were barked and set in cement, and are as good today, hard as flint, as they were six years ago when the house was built. The whole building cost me $520, complete, at that time, but of course everything is higher now which would make such a structure cost about $800. I believe anyone following this plan for housing will be fully repaid and entirely satisfied.

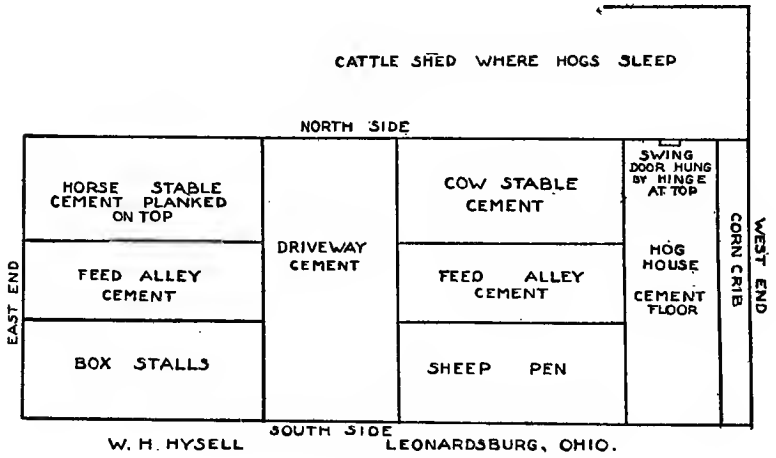
Combination Barn and Hog House

I have been raising Durocs for about ten years, and have had hogs in times when I hated to go out to feed. When I had to feed in the mud, my hogs were generally covered with scurf and lice, and, of course, runty.

Six years ago we built a barn, so I thought I would remember the hogs by erecting a shed on the end of the barn 16' wide and 32" long, with a crib in it of a 200 bushel capacity and high enough to permit the hogs to run underneath. On the north end of this shed is another the same size for

cattle to run under, facing the east. These two sheds are built together, and I have a door hung on hinges between the two so the hogs can go from one to the other if they like. They soon learn to push this door which does away with the expense of shelling corn for a self-feeder, for there is nothing that can get in to bother the corn. They sleep in the shed with the cattle. When I first built this shed, I left it with a dirt floor, and fed that way for a couple of years. I was feeding twenty-five hogs one winter, two bushels a feed, out of doors when frozen and in the shed when muddy, but they finally got the shed in bad shape, so I put a partition in my barn floor which is concrete, and I found that it took less corn. With the other way, a man would lose enough money at the present price of corn to build a concrete feed floor. My hogs eat in this shed on a concrete floor, but they never sleep on it in winter, and it makes a nice place for them in summer.

Two years ago I had a bunch of hogs that got scurfy and lousy, and as it got too muddy to haul my manure out of the horse stable on the field, I wheeled it out in the cattle yard under the shed, and my hogs started sleeping in it. I was a little uneasy about it at first, but I soon found they had no lice and the scurfy was gone. I have been making a practice of keeping dry horse manure under the shed from that time, since it makes a cheap way of dipping them, and I have had pretty good success raising Durocs.



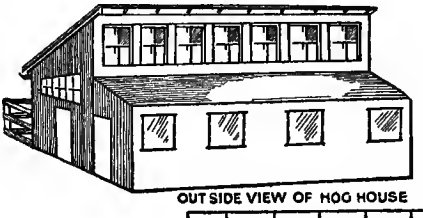
A Convenient and Serviceable Hog House

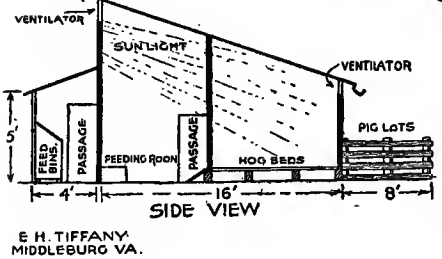
This house faces south. The windows at the top are so arranged as to allow sufficient sunlight for the hog beds. Ventilators can be made either above or below windows. The passageway separates troughs and feed bins. The feeding rooms are supplied with swinging doors; back of feeding rooms are the beds raised 8 inches above ground, and back of the beds are the pig lots.

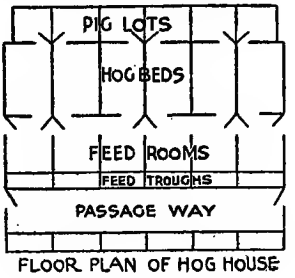
The exterior of this house is made with a lattice effect so as to allow a free circulation of air. This will certainly prove a labor saver and life saver to hog raisers. Materials required:

5,000 ft. of plank 1 in. thick.
580 ft. 2x4s.
240 ft. 4x4s.

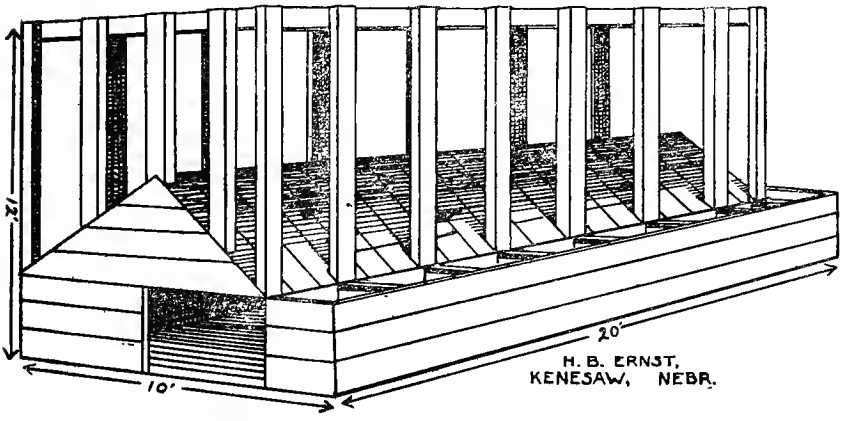
Two hundred and fifty dollars will easily complete this house today, without the roof, which will require about twelve rolls of paper.







Combination Hog House and Hay Rack



A hog shed of my own construction is shown in the sketch below. This certainly is a cheap, warm shed, built in a horse feed rack. A well-built A-shaped house is constructed in the rack, the roof boards running same as on an A-shaped hog house. I have doors in roof that can be opened when rack is empty in summer, thus permitting sunlight to enter. My feed rack is 10x20x12 ft. high with a 2-ft. manger on two sides and on one end. The other end is left open for an entrance for the hogs. I haul a load of wheat straw and cover this house, and fill the manger. Then I haul oat straw, hay or any other feed, fill the rack and your hog house is well covered. By putting the wheat straw in first, the manger is always well filled for banking for the house. This house is two feet high on sides and four feet in center.

A One-Room Portable Hog House

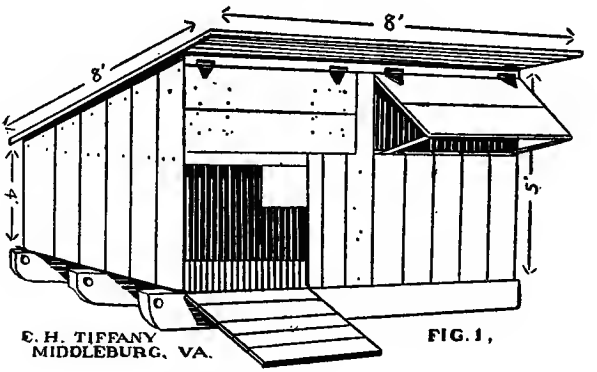


FIG. 1,

We have used the house shown in Fig. 1 and find it the most useful hog house on the farm. A team of horses can easily draw it to any place desired. This house is especially useful in the summer. It was built on a rainy day and the following materials were used:

Two hundred and fifty feet of plank.
Three pieces 2x6x8 feet for runners.
Six 2x4x16 feet for framework.

The labor and material cost me not over $6.50 two years ago.

When painted, this house will last many years.

A Double-Room Portable Hog House

The house shown in Fig. 2 is built on the same plan as Fig. 1, except that it is a double house. I use this house for two different lots, arranging

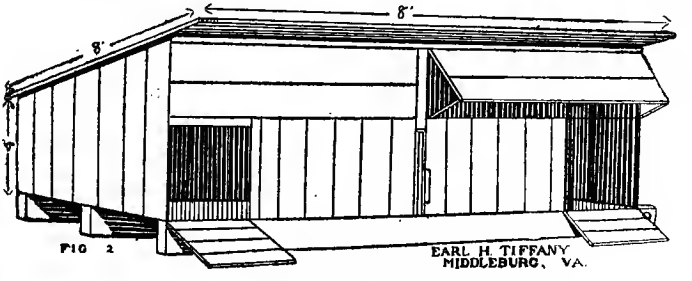


FIG 2

the fencing accordingly. If I use the house for several shotes, I pull the sliding partition making one large room. This house is as convenient as No. 1 and can be moved anywhere on the farm by a team of horses. The material requirements:

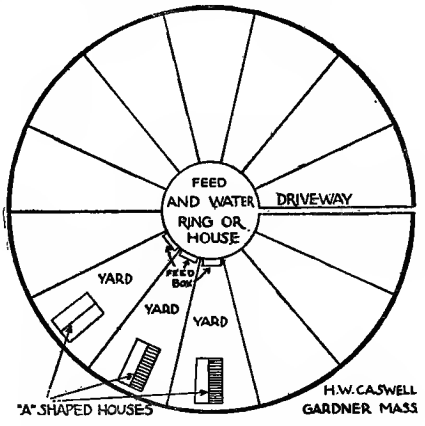
Four hundred and fifty feet of plank.

Three pieces 2x8x16 feet for runners.

Ten pieces 2x4x16 feet for framing.

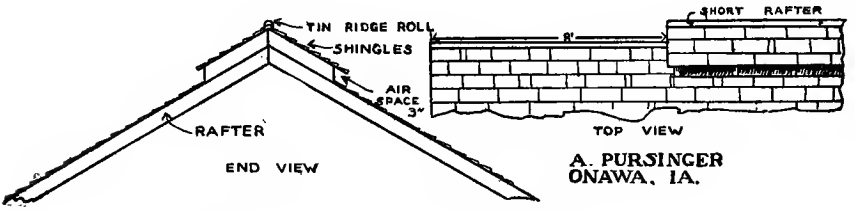
When completed as shown by the drawing, the labor and material cost me $11 in 1917.

This Arrangement of Pens Expedites Feeding Operation



The accompanying diagram shows an arrangement which I have found to be exceedingly convenient in managing either fourteen brood sows or as many litters of growing pigs. The same system can be carried out, however, in case a smaller number of yards is more suitable. The advantages in having the pens in circular form about the central feeding and watering ring or house can easily be ascertained, but the principal feature is that it expedites matters very materially at feeding time, at the same time allowing the brood sow or growing pigs free access to the range. With this system you don't have to run all over the farm to feed the hogs, but can have everything handy in the central house and distribute them much more quickly.

Miscellaneous Hog Lot Appliances



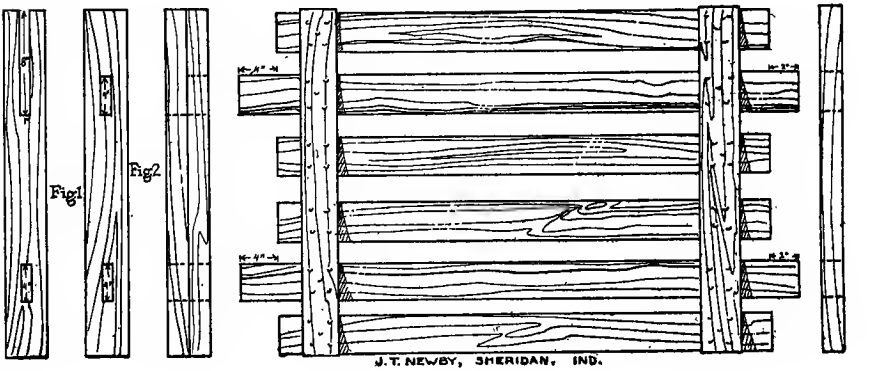
A New Idea Hog House Ventilator

The plans shown will give you some idea of the ventilator used on our farm, my most practical of hog farm equipment, because it is so practical and economical. It is used to be put on hog houses with skylight windows. The length of it is the length of the house, minus eight feet on each end. In its construction, sheet and shingle the roof of house up to 12 inches of the ridge of the roof on each side. Cut short rafters 12 inches long and fit on top of main rafters of roof; cut a set of short rafters for each set of main rafters of the roof included in the ventilator. After these have been placed, sheet and shingle as one would the roof. Place tin ridge roll on ridge of ventilator, which will leave a space of about three inches between roof of ventilator and that of house.

This is the type of ventilator put on my father's hog house last year and has proved so successful that I wanted to give you the benefit of it. I know of no other like this. Last winter we used such a house for sleeping quarters for hogs. This ventilator takes out all of the frost on the inside walls of the house, all dusty air soon passes out of it, and it furnished fresh air for them to sleep in without a particle of draft. The ventilator being almost the entire length of the house does away with air currents and drafts that skylight window ventilators and cupola ventilators give. The small cost over and above the cost of the house gives it such an economical feature.

Partition Gate for Hog Houses

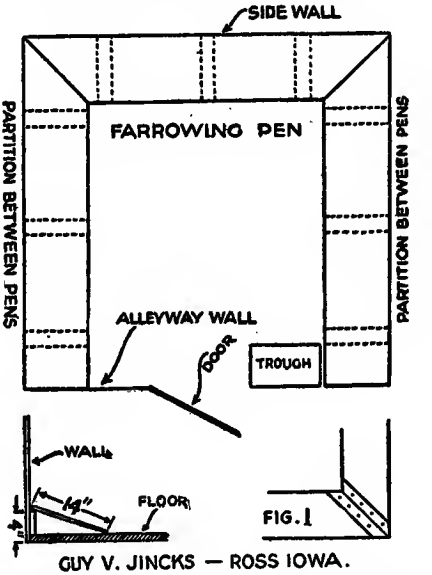
The inexpensive and durable partition gate described for hog houses or other stock buildings we have found very useful on our place, and is also very light, making operation easy. It may be taken down and hung up to the ceiling or any convenient place where it will be out of the way, in this way giving more room for feeding.



In making this gate, first take a 2x4 of the height desired for the partition and saw out a piece 1″x8″ long at one end, as shown, and also in the same piece cut out 1″x4″ hole six inches from the bottom for a slot to permit the sliding of the partition gate. This piece is nailed securely to post or side of wall. Another 2x4 is made similar to the one above, with the exception of the 1″x8″ slot in top, and instead, make an opening 1″x4″ six inches from the top to correspond with that made near the bottom. This piece is then nailed to 2x4 number one. A third 2x4 is made like number two and fixed to the side opposite pieces number one and two combined. These supports are now ready for the partition proper which is made out of ¾″ or ⅞″ lumber, 4″ wide, the length according to the width of space to be partitioned off. The top slat and the one next to bottom are the same length, both

being four inches longer at one end and two inches longer at the opposite end than the two intermediate 1x4s, which may be spaced according to one's desire. When the gate is in place, a piece may be fitted to fill the slot in 2x4 number one to make it secure.

A Guard for Young Pigs



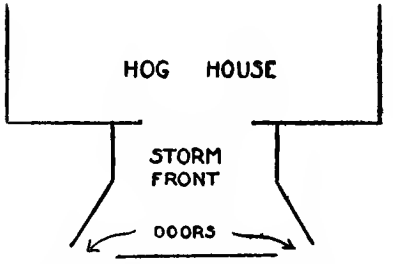
This device has proved very satisfactory for me. This prevents the sow from laying on young pigs, one of the greatest difficulties in farrowing. This arrangement prevents the sow from laying against the wall, thus giving the pigs room to go around. I am sure that this device has saved me thousands of dollars' worth of pigs. Before trying this method I used 2x4 about 10 inches from the floor and wall, but all too often the sow, in lying down, would catch one of the best pigs of the litter between the 2x4 and her body.

If there is a board floor in the hog house the lower edge of the board can be nailed to the floor, the top edge resting on a 1x4 nailed flat on the wall. Where a cement floor is used they can be nailed at the ends and a strip nailed down each corner, as in Fig. 1.

Storm Front Protection for Hog House

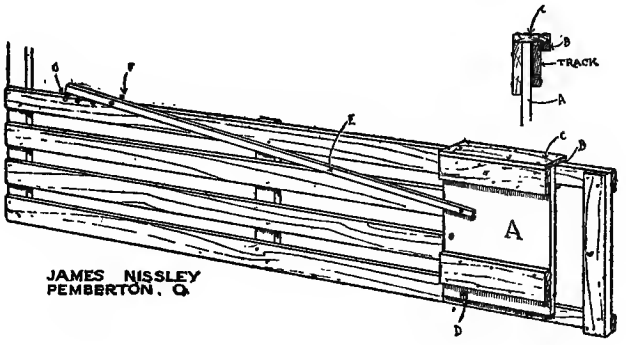
I want to say in the beginning that the man that tries to raise hogs without a shelter should get out of the business. Trusting to the hog to fix his winter quarters in the woods and fence corners has gone out of date. In this section it is almost obsolete. In our country raising corn and hogs is the main business, and almost every farmer has a hog house of some kind, but one thing for the protection and comfort of our hogs is neglected—storm doors to our houses. They can be built out of old lumber with small cost, but you can save enough in one year to build them out of new material.

If you have the small single house and your brood sows and fall shoats can lay in one, fix two or three or more if you need them. If you have the large colony house, you will need only one door. Neighbor, do you think it advisable, good policy, remuneration, while you are tucked up in a warm bed to let your sows sleep in a house with the door open? Have you stopped to think that that neglect causes many ills? It takes more than enough feed to keep them warm than to build the device each year. Hogs take cold, cough, take rheumatism, and many die of pneumonia on account of the drafts and extreme cold blowing directly on them. Ventilate your house, but close your doors. You cannot afford to stand out in cold weather waiting for hogs to go to bed to close the doors of your hog house. Build a storm door! Build it now! Protect your foundation, you will sleep better yourself. Aside from the comfort it will make you money, the very thing most American farmers are looking for. You build the door to suit your house and fancy; but here is a good plan.



J. H. GOODKNIGHT, KEMPTON, IND.

Make a square large enough for a hog to turn around in and inclose three sides, the open side set against hog house door. Cut two doors in the storm front sides opposite each other. The wall opposite door in hog house must be left tight. It is best to keep one door in the storm front closed, depending on the direction the wind is blowing. You can roof it any height desired, but I find three feet is a very convenient height to use.



A Sliding Door

Here is a sliding door that I use on my shift partition. It is operated from aisle by handle, which I find very convenient.

In the sketch, *A* shows an ordinary door made of inch boards as high and wide as desired, with a nailing strip six inches wide on each end. *C* is a board 1x4 inches wide and as long as the door is wide. This board is nailed on top of the door and extends one inch over the top board of partition so that the strip *B* 1x1 can be nailed underneath to keep the door on track. There is also a 1x1 nailed to the door under the track board to keep the door from being raised.

D is an ordinary door guide with a roller which allows the door to slide very easily.

E is a 1x2 oak lath which is fastened to the door with a bolt.

F is a bolt with which the door is locked. This enables the door to be locked so that pigs of any size may be allowed to go through and at the same time prevent the larger ones from entering.

G shows notches cut in top of board to allow the lock board to drop and lock the door. The sketch shows the door slightly open.

We find that this door is very serviceable to hold hogs while ringing them; one man operates the lever and the other does the ringing.

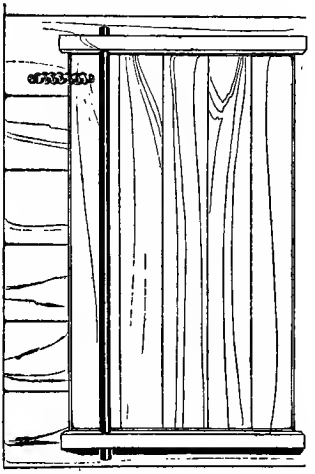
This door and partition should be made from hardwood so the nails will hold, as there is a great deal of strain on hog furniture.

I have some of these doors hung on small rollers.

A Swinging Door for Hog Houses

I have a little article on better hog raising which I think every hog raiser should have, namely, a swinging door that will permit the passing of the pigs and that will close after them, excluding snow and rain. By the use of this door, it is possible to keep the house warm at farrowing time. I have found that pigs only two weeks old can operate this. It also prevents chickens from entering the house if the windows are covered with netting. We have used these doors for five years and find them highly satisfactory.

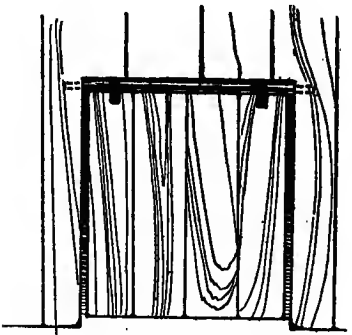
The hinge is a ⅝-inch rod running lengthwise of the door 3½ inches from one side and attached to the door. I use two check row corn planter springs, one on each side of the door, near the top and behind the hinge rod. These springs allow the door to go either way. The diagram shows the plan.



RICHARD HALL & SONS
BRADFORD, ILL.

A Convenient Hog House Door

I have a home-made hog house door that greatly benefits a farmer's wife, the farmer himself and his entire family, and there seems to be very, very few in use. It keeps the chickens out of the hog house, and in winter automatically keeps many cold drafts off the hogs and sometimes saves the lives of pigs. In summer it will darken the house, if so desired, for fly protection. Thus it saves poultry, tears, trouble, little pigs sometimes, and makes happiness and money

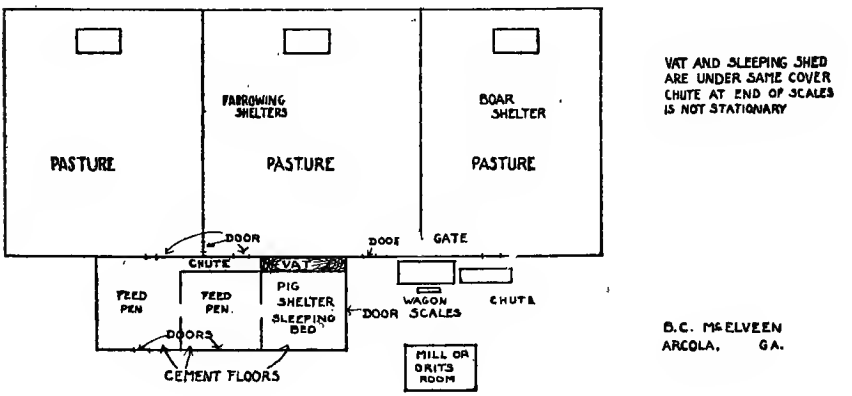


for wife, farmer and family, and also makes more good strengthening food for the loved ones who are fighting so hard for the existence of our very nation and ourselves.

This device is a light board door, just a little shorter and narrower than the opening made for the hog entrance in the house. This door is suspended from a rod at the top of the doorway so that it can be easily pushed in or out. This lets the hogs go into or out of the house as they please, and in my experience with it, no bad results have yet occurred from its use.

Arrangement of Pens Handy When Dipping

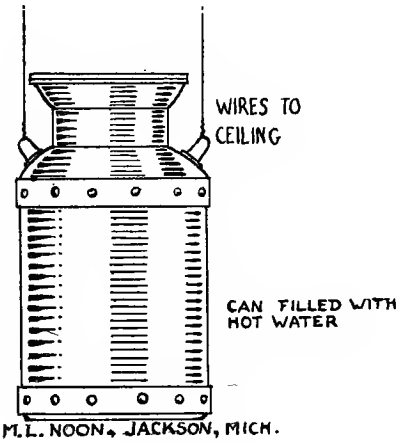
The arrangement of the pens and quarters as shown on the accompanying diagram I have used for some time and has proved very sat-



isfactory. One advantage is, when dipping, the pig can be brought from pasture thru the dip, weighed, and either returned to pasture or loaded on wagon by the chute at the end of the scales. The chute is not stationary, and can be fixed on wheels so as to make it easier to pull around to different places.

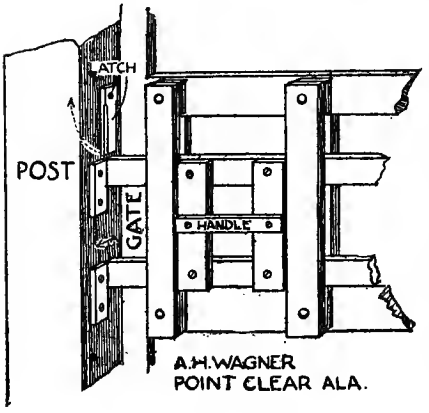
The vat and sleeping porch are under the same cover.

Simple Heater for Farrowing in House



A simple way to heat the farrowing house in cold weather. Hot water, milk can and wire does the work. Attach wire from each handle of the milk can to the roof so it cannot be tipped over if the sow objects to it being there. This will change the temperature of the house and make it comfortable for the little "newcomers."

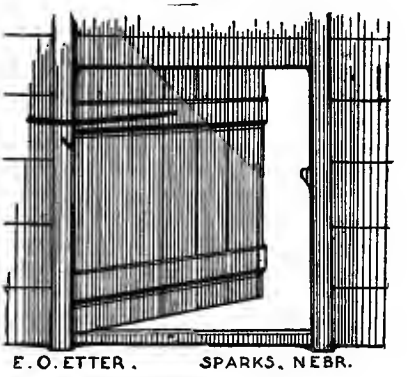
A Fool-Proof Latch



The latch shown in the accompanying illustration has been very satisfactory to me. The diagram shows the details of its construction. One and the best features of this is the small piece of wood which is hung in the position shown as the "latch," which makes it impossible for a horse or any other animal to lift up the latch and open the gate. This is loose and can be swung aside when one desired to open it. This has been in use on several of my gates around the farm and it has proven worth-while.

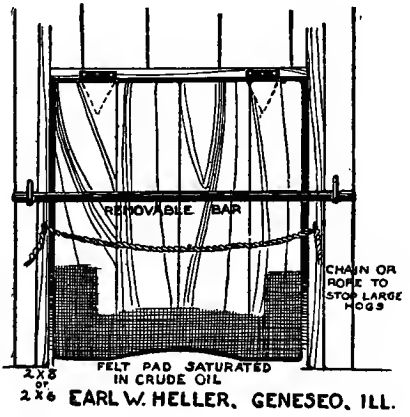
Self-Closing Hog House Door

Use a light weight screen door spring; fasten one end to the wall and the other end to the door as shown in illustration. Nail a ¾-inch button on the building so the door cannot close tight. The hogs will soon learn to open the door with their snoots.

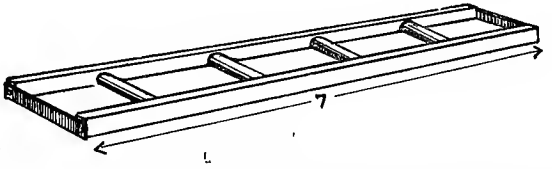


A Hog House Door

I am using three of the doors described below and would not be without them. It may be hung inside the regular hog door in the hog house or placed wherever needed, in pens and fences, etc. It is chicken and cat-proof, though the hogs may pass either way at will, and the door is always closed against drafts and storms. The chain or rope may be adjusted to stop large hogs and allow the small ones to pass through. The removable bar allows the hogs to pass one way only, thus making it possible to shut up the hogs for sorting. A strip of felt may be tacked on the bottom side of the door and saturated with crude oil, making an effective oiler. The diagram indicates the method of construction.

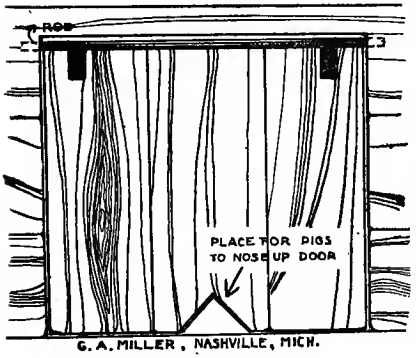


A Roller Skid for Loading Crates



I find daily use for and save many a heavy lift with a roller skid, as shown by the sketch above. With it a five hundred-pound hog can be loaded with ease by one man. To construct such a skid, take two 2x4s 7 ft. long and two pieces of wagon tire, and bolt them at each end. Then take the two rollers out of an old binder, saw them into four pieces as rollers of the desired width. Fit them into the top edge of the 2x4 equal distant apart. Bolt them together at each end of the bottom side. One end of the roller skid is placed on the wagon box and the crate containing hog is easily rolled upon the wagon.

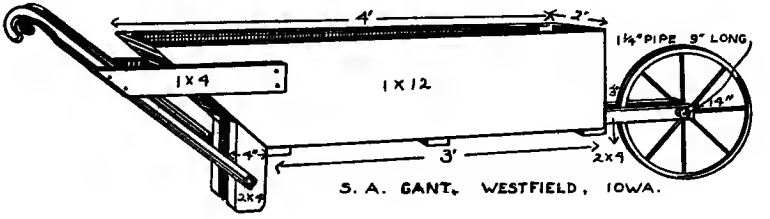
Winter Hog House Door



Fasten a rod (an old wagon box rod will serve the purpose) across the top of the door. Drill a hole in casing at one end, and chisel out a hole for the rod to go into at the other end. Hang the door on the rod, slip rod into hole on one end and slot on the other. Then nail board neatly over slot to hold the rod in place. Small pigs will learn to nose up the door if you leave a slot at the bottom of the door as shown above.

A Home-Made Wheelbarrow

The construction of the wheel barrow shown by the diagram is as follows: Take a 14 or 16-inch plow wheel, a piece of 1¼-inch well pipe 9 inches long, two pieces of 2x4 50 inches long, bore 1¼-inch hole in one end of them, make hole a little larger with a hot iron, then put one 2x4 on each side of the wheel and place the pipe thru for an axle; clinch the pipe on both ends a little so it will stay in place, then take three 2x4s 2 feet long. Place the first one 4 inches from the back end of the 2x4s on the wheel. Nail it on top, having the 2x4s coming back from the wheel just two feet apart at this point. Nail the next one on top 3 inches from the wheel and the third one in the center, laying them on the side so it will be easier to nail them on solid. Lay a floor on them with 4-inch fir or hard pine flooring; this floor will be 2 by 3 feet; then take a good piece of 1x12 12 feet long for the sides and ends of the box. The box will be 2x4



feet on top, the back end of which is cut mitering, which is a great advantage in shoveling ear corn from the box. Reinforce the corners of the box with four pieces of 2x2, setting the end gates in 2 inches. Take a piece of 2x4x28 inches, cut the corners off, then cut it two in the center mitering. This will make the legs. Bolt two plow or cultivator handles to the center of the legs and to a brace on each side of the box made of two paint, and it will last for many years. pieces of 1x4 2 feet long. Use plenty of nails, and give it two coats of good

The one I have is four years old, has been used every day on some part of the farm, and is still in good shape. Five hundred pounds can be wheeled in it. Side-boards, similar to a wagon, can be made for it. When standing on the ground with a load in it, it is not so easily upset as an ordinary wheelbarrow. We have used this barrow in cleaning the barns, to haul grain, wood, cobs, cement, hogs in crates, and as a watering and feeding trough for horses and cattle, also to mix cement and plaster in, and for many other things such as hauling fencing material, a barrel of salt, etc.

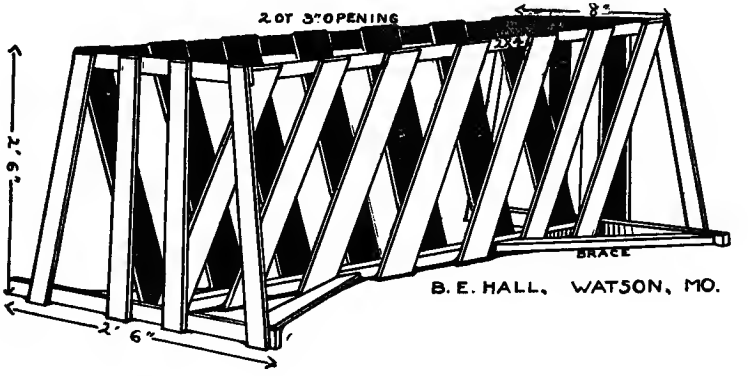
No factory made wheelbarrow will serve the purpose of this one. I would not take $50 for it if it is impossible to get another one like it.

A Rack That Prevents Alfalfa Waste

I always had trouble with hogs wasting alfalfa until I made a rack like the sketch indicates below. With this rack, my hogs do not waste this feed or trample in the mud, and they can get every spear of hay. If green

alfalfa is mowed and fed, this rack is the place for it.

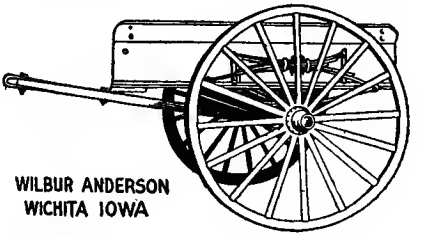
The persons who adopt this rack for feeding hay, etc., will find no fault in its use.



A Hog Farm Auto Trailer

The trailer I use was made from the rear axle, reach, and front wheels of an old spring wagon. I made the box four feet long, 2½ inches wide and 10 inches deep. I bolted a 16 inch wagon box iron at each corner, allowing them to protrude four inches above the corners of the box. These I bent out and bolted flare boards to them. The box is bolted to the reach in front and to the springs. I cut off the reach about 18 inches in front of the box and bolted two strap irons to it with holes in the end for the hitch.

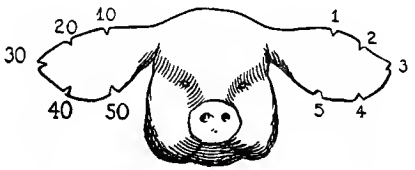
The trailer cost me about three dollars for lumber, nails, bolts and iron. I had the old spring wagon and did all the work myself. I have two crates that just fit the box and I haul two hogs at one time.



A Stay-There Ear Mark

I have put ear tags in my sows' ears several times and they get torn out. While all do not get torn out, still they constantly are losing. If all the sow pigs from a certain sow are in the same ear mark I have no way to distinguish these. This is very inconvenient at breeding time.

I bought a tattoo marking apparatus and ink, but read that tattoo did not show well on red skin, so I never used it. I used a belt punch and small blade pocket knife, but had to re-mark several as the slits would grow up. I am using a V-marker mark, so this will last her all her days.



The Sketch Shows W. A. Wadsworth's Ear Marking System

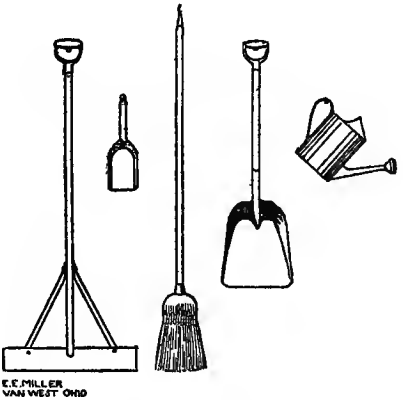
I put all the boars of the same litter in the same mark, as they later will have different owners. This saves the marks running up so fast. Pigs are marked when I cut off the teeth to keep them from damaging each other or the udder at two days old.

In looking at the accompanying cut we notice no mark near the head. We have found the upper side of the ear next to the head is a mean place now so the marks will never grow up. I put each sow pig in a separate to mark and hard to see later. Here a mark disfigures the ear. We start on the left ear top line, mid-way, and cut a V. This stands for No. 1, same as an ear tag No. 1. On same ear half way between the center and end on top cut V. This stands for No. 2 sow pig. At end of left ear cut V stands for a figure 3. On bottom side of left ear about the center a V cut stands for a figure 5. Between the center and the end on the bottom of the left ear a V cut stands for figure 4. If the first sow had 5 sow pigs and 4 boars that we marked, the sows would be marked as shown and all the boars be marked alike with No. 1. Since one plus five make six, we cut one and five for number six. For No. 7 we cut 2 and 5. For 8 cut 3 and 5. For 9 cut 4 and 5. All marks on the left ear stand for units, while all marks on the right ear stand for tens.

A cut V at the middle top side right ear stands for No. 10. A mark right ear top side near the end stands for No. 20. A mark at the end of right ear makes No. 30. On the bottom of right ear we cut 40 and 50, as shown in cut. Now 10 plus 50 makes sixty, hence we cut 50 and 10 to get sixty. We cut 1 and 10 to get eleven. We cut 10 and 2 to get 12.

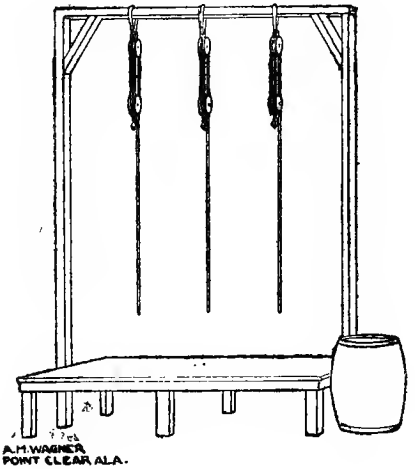
By using these simple cuts we can mark 100 sow pigs each in her individual mark. To distinguish the second hundreds we can cut a V mark near the head on the left ear and start at one again and mark up to 199. By marking the right ear under side close to the head we designate 200; 200 plus 100 makes 300. Hence cut a V in each ear next to head bottom side will get 300. By adding other marks we get to 399. To mark 400 cut two marks on right ear under side close together and close to head. Four V's on the under side of each ear reads 699.

Tools for Sanitation



Here are diagrams of my equipment for keeping my hog barn and feeding floors in a sanitary condition. I have over 2,000 feet of cement floor, and I go over these at least once each day. The scraper is used to shove droppings and cobs together, while the wide shovel is used to remove either into a sled or hand cart. With this outfit I also include a good broom and sprinkling can, and since adopting my outfit, cholera has been a stranger on my farm. In making my first scraper, I used a cross-cut saw blade, but I soon discarded this as it was tempered too hard and broke easily. I am now using a piece of malleable iron which is heavier and gives entire satisfaction. I use a five foot handle and the blade of the scraper is two feet in length and about two inches wide. The shovel is an ordinary coal shovel 14 inches wide, and I also use a small fire shovel to assist in cleaning out the troughs.

A Handy Item at Butchering Time



The diagram submitted herewith is self-descriptive as regards the construction and arrangement of this handy help at hog killing time. As you will note, the uprights are of rather heavy material, which I made 25 feet long, having 4 feet in the ground; likewise is the 5-foot cross piece overhead, on which are placed the three blocks. I have used a platform in connection with this and found it more convenient than without.

With the pulley the pig can be raised or lowered as desired and makes it easier to scald and dress the carcass. The hog can be lowered into the barrel full of scalding water and then dressed. By having more than one pulley equipment, several hogs can be taken care of at one time, thus expediting matters considerably.