

FOR COLLINS, COLO.

Bulletin 283-A

September, 1929

FARM BUTCHERING OF HOGS



COLORADO AGRICULTURAL COLLEGE

EXTENSION SERVICE

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FORT COLLINS

Cooperative Extension Work in Agriculture and Home Economics, Colorado Agricultural College and the United States Department of Agriculture Cooperating. Distributed in Furtherance of the Acts of Congress of May 8 and June 30, 1914.

FARM BUTCHERING OF HOGS

Killing—Cutting—Curing

BY FRED H. LEINBACH

Farm butchering of hogs, including caring for the meat, is not a hard process as farmers are often apt to think. Many of them prefer to sell their hogs on foot and to buy back pork products from butchershops at relatively much higher prices. The butcher charges enough for his meat to pay for the killing and cutting and in order to do business he must have at least a reasonable profit on each pound of meat that he sells. This profit and the cost for labor can be saved if the farmer does the work with the help he has available. Two men can easily kill and dress six medium-sized hogs in a half day.

Necessary Tools and Equipment.—Good tools and sufficient equipment are essential for best results. The tools do not need to be expensive or elaborate. The necessary equipment when two men are doing the work includes the following: Two sharp butcher knives made of good steel (knives which can be sharpened to razor sharpness and which will hold the razor edge with occasional steelings); one steel (a 14-inch steel is preferable), one 18 to 24-inch saw, 2 bell scrapers, 1 hog hook, and gambrels. A 3½-pound cleaver and a thermometer for testing the water for scalding, while not absolutely essential, can be used to very good advantage and should be included in the list if much butchering is to be done.

In selecting a knife one should select one that can be used in other ways about the farm. Some men will prefer an ordinary 16-inch skinning knife, others an ordinary 7- or 8-inch butcher knife. Either kind will be satisfactory altho for hog butchering the author prefers an ordinary 8-inch butcher knife.

The purpose of a steel is not to sharpen a knife but to keep it sharp, so buy a steel which is smooth. A grindstone should be used to put a fine, wire edge on a knife, a fine carborundum stone should be used to remove this fine edge, and the steel should be used to further smooth down the edge. Steel but little at a time but steel often to keep knives sharp.

Gambrels can be made on the farm, or an ordinary corn plow single tree makes a very acceptable substitute.

For the hog hook, a bale hook is good.

Killing

Selection of Animal.—Only hogs which are in a thrifty condition and known to be free from such diseases as tuberculosis

should be used. Others should be inspected by a competent veterinarian before the meat is used. Young hogs weighing 150 to 300 pounds and which are carrying a medium amount of fat and are gaining are best, as meat from such animals will be tender, palatable and of good flavor. Hogs of this weight are the right size for two men to handle properly. Meat from sows which are in heat or from hogs which have been run very much just before being killed is very apt to spoil in curing.

After the hogs have been selected they should receive no food for a period of 12 to 24 hours prior to the time of killing. Allow them access to water, however. Shrinking for this period of time not only results in a saving of feed but also makes it much easier to gut them.

Methods of Killing.—1. Shooting.—In case the hogs are extremely wild it is sometimes necessary to shoot them before sticking. It is not a practise to be recommended however as ordinarily it is impossible to get a good bleed on hogs which have been shot.

2. Stunning.—Stunning is very apt to be cruel and stunning animals will usually result in a poor job of bleeding. Often clots will form after stunning which prevent the blood from properly escaping from the body after the animal has been stuck.

Sticking.—All hogs must be stuck to allow the blood to escape from the body and sticking without first shooting or stunning is the most humane way of killing the animal.

To stick the hog, roll it on to its back, one man straddling the breast of the hog, holding the fore legs up straight, keeping the animal squarely on its back. The second man places his left hand on the chin of the hog, holding the head tight to the ground. When the center of the head is in line with the center of the breast bone, he makes an incision 2 to 4 inches long just in front and on a center line with the middle of the breast bone. With the edge down, he then thrusts his knife in to the breast bone and with the point feels down around and just under the bone a distance of about an inch. Bending his wrist so as not to push his knife back further, into the chest cavity, he cuts down toward the back bone. This cuts the two cartoid arteries just as they fork immediately in front of the heart and gives the most satisfactory sort of a stick.

If the knife has been held straight up and down and the hog has been held in a straight line on his back, it is impossible to get a so-called "shoulder stick" or a "heart stick" by this method. Heart sticks are very objectionable as the heart quits pump-



Fig. 1—Method of sticking.

ing before all of the blood has been pumped away from the small capillaries of the body. After sticking, the hog should be allowed to get up and walk as this insures a better bleeding.

Scalding.—If possible heat the water near the tank or barrel in which the hog is to be scalded. A 6- or 7-foot stock watering tank makes a handy scalding tank but if one is not available use a large wooden barrel. A platform of 2 by 8 planks 6 feet long and supported by a wooden saw horse on each end should be butted up against one end of the tank or barrel. Heat the water to 150 degrees Fahrenheit. (If thermometer is not available test by dipping a finger into the water 3 times in rapid succession. If sufficiently warm the water should sting on the third trial, and if too warm, on the first or second.) Water used too warm will result in the hair setting; if used too cool there will be no scalding. A teaspoonful of lye to 30 gallons of water or a small amount of wood ashes may be added to the water to help remove the scurf.

Scrape off the blood which has accumulated on the sides of the hog (hot water will not go thru appreciable amounts of blood) and with the use of a block and tackle and the hook inserted so as to hook the lower jaw, lift the hog on to the platform and from thence put it into the tank of water. Turn the hog fre-

quently and when the hair begins to slip easily from the head and feet (which are the hardest places to scald), remove to platform. With the bell scrapers start removing the hair from the feet and legs and then from the remainder of the body.

Hot water poured at frequent intervals over the body will help loosen hair which sticks as the carcass cools.

If it is necessary to use a barrel for scalding, one end is scalded at a time, preferably the rear end first so as not to set the hair on the head. The hog is reversed and the other end scalded. Test frequently to see if the hair is slipping.

Hanging Carcass.—After all the loose hair has been removed, the skin just below the hocks on each side of the tendons should be slit for 3 or 4 inches. Insert the gambrel and with block and tackle raise the hog so that the nose is only about 6 inches from the ground. With warm water and the bell scrapers clean the hog until he is white from head to tail, then wash with one or more washings of clean cold water.

Opening the Carcass.—For sows, begin by cutting between the ham until the pelvic bones are struck then open down on the midline, 4 or 5 inches toward the head. Then with the edge of the knife pointed upward split thru the pelvic bones, cut around the bung gut, loosening it. The bung should be tied with a piece of string. With the first and second finger of the left hand under the skin start cutting the skin on the midline until the breast bone is encountered. With the bung gut in the left hand, strip down past the kidneys, leaving the latter covered with the leaf fat which surrounds them by occasionally cutting the fat loose which hangs to the intestines. With both hands reach in under the stomach and other parts of the offal and pull upward and outward (the liver should come with the rest), cutting off the stomach tube (oesophagus) just as it goes into the chest cavity. Remove the caul fat (loose layer surrounding the stomach and attached to the spleen), strip the gall bladder from the liver and put liver and caul fat in a pan of clean water.

With the edge of the knife pointed downward split the breast bone by hitting on the back side of knife with the fist or by sawing, and cut the remainder of the hog open down to the lower jaw. Cut out the white diaphragm muscle which is attached to the hanging tenderloin and remove the heart and lungs from the chest cavity. By pulling on the windpipe and stomach tube and with the occasional use of the knife, these and the tongue can be removed entirely. Separate the tongue and heart and place in the pan with the liver and caul fat. If it is desired

to make soap from the fat surrounding the small intestines it should be stripped off and placed in a separate container. The remainder of the offal can be removed and fed to hogs or chickens.

For barrows the procedure is the same except that the penis and cord are loosened first and thrown back over the center of the hams and later removed with the bung gut.

Splitting.—After the hog has been gutted and washed inside and out to remove any blood stains, the carcass should be split, cutting down thru the back bone and down thru the center of the head to the tip of the nose and allowing the sides to be held together with skin at the snout.

Chilling.—Allow the carcass to thoroly cool out before cutting. Not only will this result in a neater job of cutting but will also insure better keeping qualities for the meat.

Cutting

Lay one-half of the carcass, skin side down, on a bench or table. Begin by removing the head at the atlas joint (just below and behind back part of the skull) at right angles with an imaginary line touching the high points of the hams and shoulder (see illustration). (The head untrimmed may be set aside and trimmed up after the other parts are separated). Counting up from the point where the vertebrae begin to rise toward the tail,

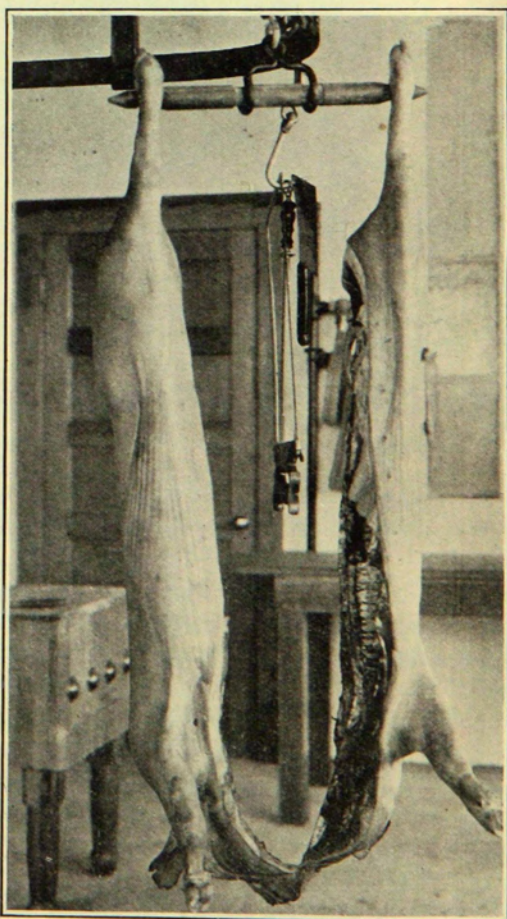


Fig. 2—The cooled carcass ready to be trimmed.

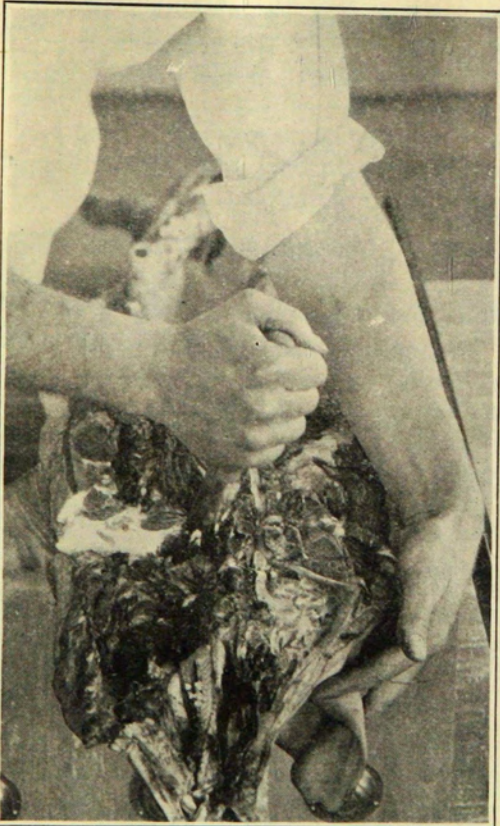


Fig. 3.—Separating the head at the atlas joint.

bone and extends forward about one-third the length of the whole loin.) Beginning at the rib end and straight down from the inner part of the backbone, saw toward this line. After cutting thru the ribs with a saw, finish the cut thru with the knife.

The main cuts consisting of the head, shoulder, loin, side and ham, are already cut. The next step is to trim each up properly. It makes little difference which piece is trimmed first but we shall start with the head.

From the head we obtain (1) the brains, (2) the Dixie square, (3) scraps for sausage meat and (4) scraps of fat for lard. The brains should be removed first. Holding the head with the ear up, the Dixie square should be cut off. This is a piece coming from the jowls and which is used for bacon. Trim the Dixie square into a square after it has been flattened out. Cut away the fat and lean behind the ear. Finish cleaning up the out-

make a mark between the fourth and fifth one. Mark with the knife at a point $\frac{1}{2}$ to 1 inch in front of the pelvic bone and separate ham on a cut made from these two points. This cut should be at right angles to the shank if made properly.

The shoulder is next removed parallel to the cut made when the head was removed and across the third and fourth rib counting from fore part of body backward.

The side and the loin are next separated.

On the loin end, mark with a small cut right below the tenderloin muscle (the tenderloin muscle lies just under the back-

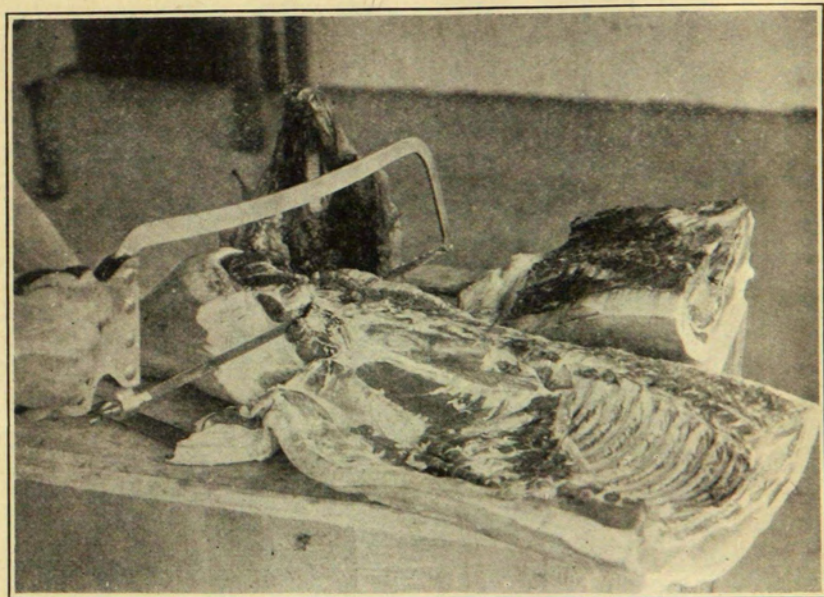


Fig. 4—Separating the ham from the carcass. The cut should be at right angles to the shank.

side of the jaw bone. Remove the meat from the inside of the jaw bone, skin down over the nostril and remove the meat underneath, and the head is trimmed.

In trimming up the shoulder, we get (1) the Boston butt, (2) the clear plate, (3) the neck-bones and (4) the shoulder proper. Begin trimming by removing the neck bones leaving as little meat on them as possible. Now cut at right angles with the two cuts already made in separating the head from the shoulder, and the shoulder from the loin and side, across the middle of the depression where the neck bones were. The top of the shoulder just removed is called the Boston butt and the fat covering it is called the clear plate. (The clear plate is removed leaving only a quarter of an inch of fat on the Boston butt.) The latter can be cured and used, used fresh as a roast or sliced for steaks. The foot and lower part of the shank on the shoulder proper are next removed by cutting at right angles to the shank just above the knee. Now, with the shank end turned away from the operator, with the skin side down, the loose flap of skin is removed by cutting from the center to the outside, both to the right and to the left. The bloody meat also should be trimmed off at this time. Turning the shoulder over, round

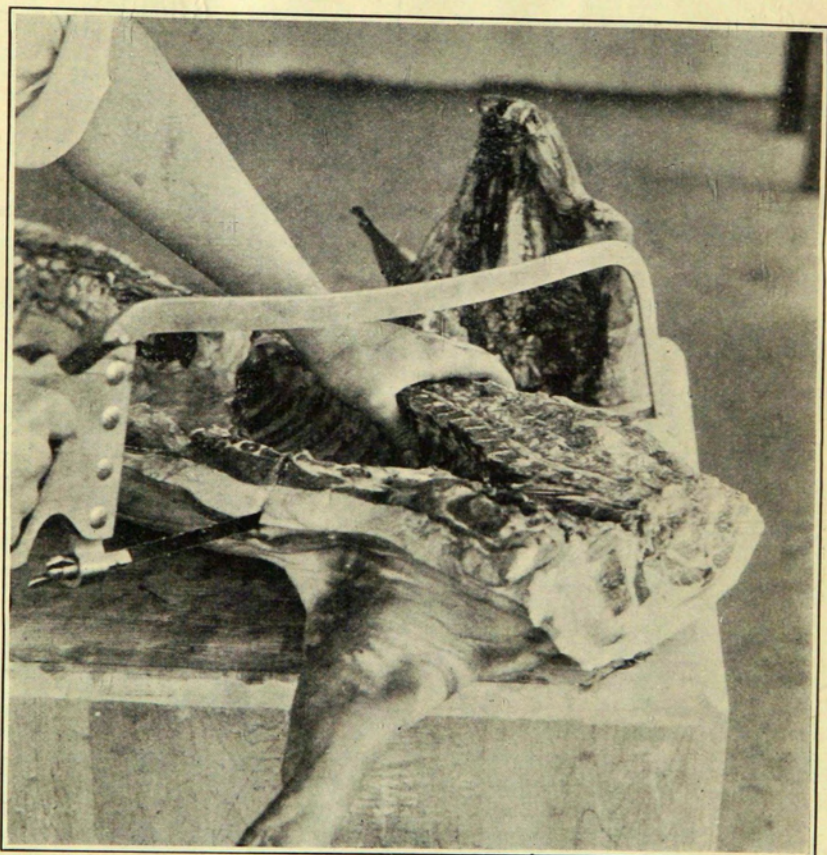


Fig. 5—Removing the shoulder.

the corners off slightly and bevel the front side back toward the shank from 1 to 3 inches depending on the amount of fat on the shoulder.

The loin untrimmed consists of the fat covering and the loin proper. The fat covering is commonly called the fat back and is used for salt pork or lard. Care should be taken in removing it to leave the loin covered with a $\frac{1}{4}$ - to $\frac{1}{2}$ -inch covering of fat.

The side untrimmed contains the (1) side meat, (2) the spare ribs along with some (3) sausage meat and (4) lard scraps. The spare ribs are removed, the part left then flattened out and the edges and lower part containing the teats removed. It should then be cut into two or more pieces.

In trimming the ham the first step is to remove the foot and lower part of the shank just above the hock and at right angles

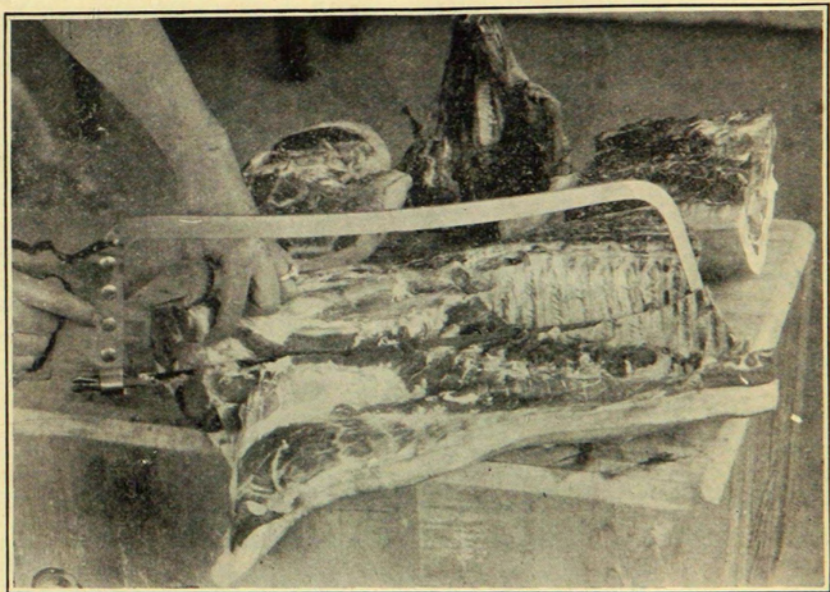


Fig. 6—Separating the loin and side meat.

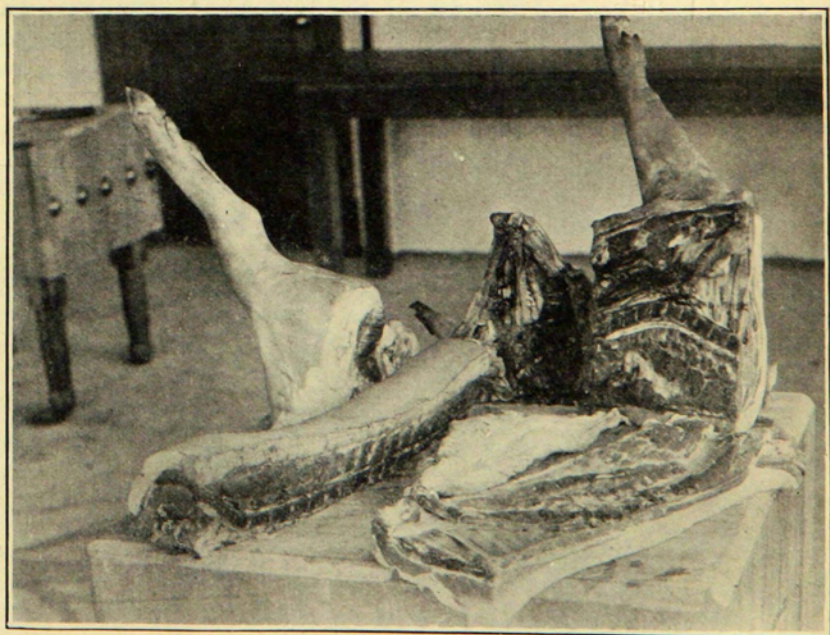


Fig. 7—The 5 main cuts (untrimmed) from each half of the carcass.

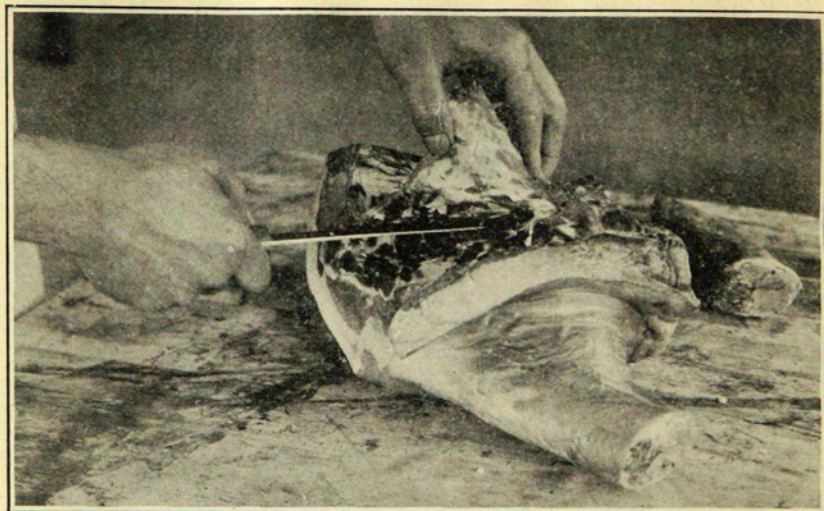


Fig. 8—Removing neck bone from the shoulder.

to the shank. With the skin down and the shank away from the operator, he starts at the center of the fat of the buldge, cutting both ways. The fat should be removed to below the buldge but care must be taken not to uncover the lean meat. The ham is turned over and with the shank still turned away, beveled back 1 to 3 inches toward the shank. Round off the corners slightly.

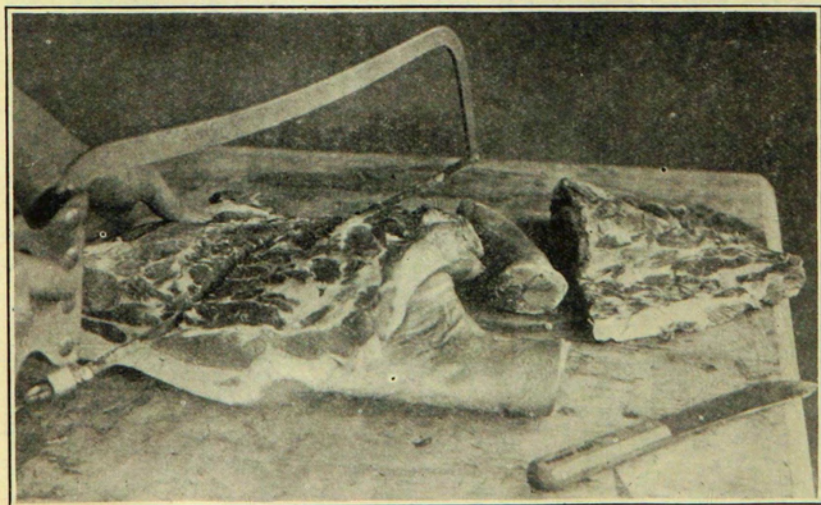


Fig. 9—Separating the Boston butt from the shoulder proper.

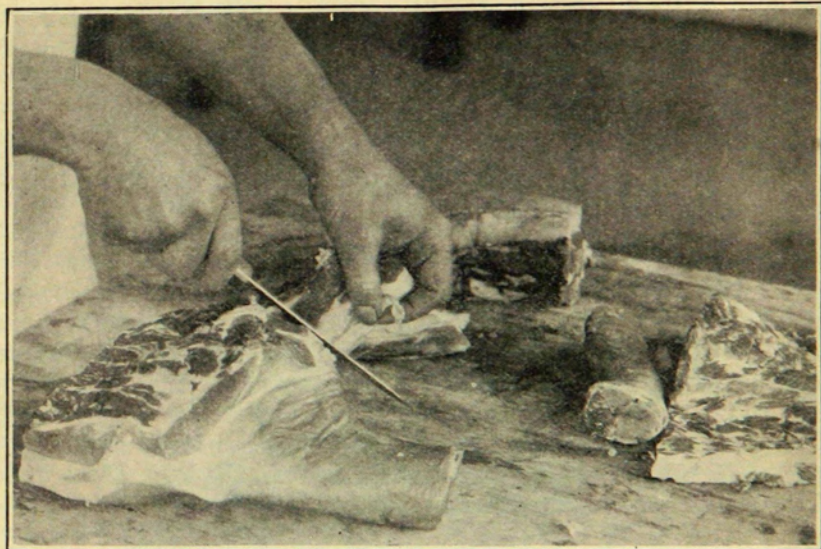


Fig. 10—Trimming the shoulder.

The scraps of meat left should be sorted out for sausage while the fat pieces should be cut into squares $\frac{1}{2}$ to 1-inch in size and rendered out for lard.

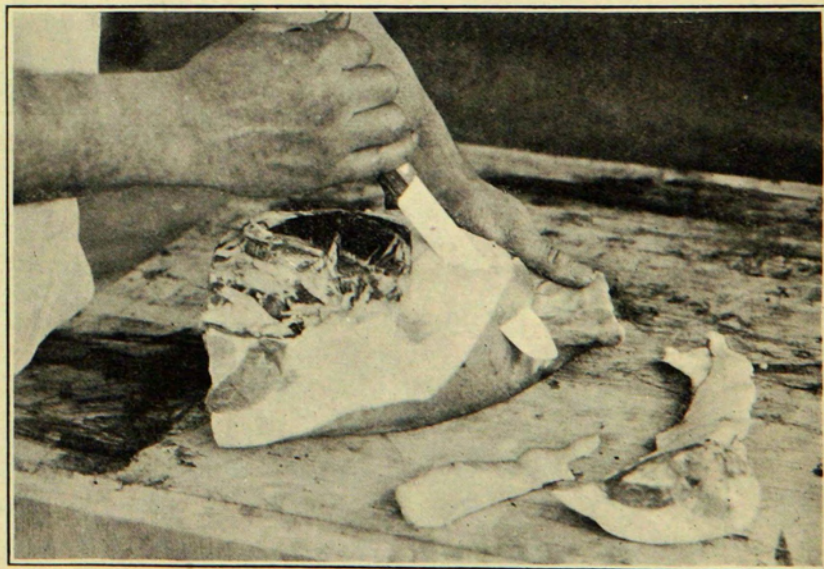


Fig. 11—Trimming the ham.

A good formula for sausage is one composed of the following: For 50 pounds of meat ($\frac{2}{3}$ lean and $\frac{1}{3}$ fat) use

- 10 to 16 ounces of salt
- 2 ounces of ground black pepper
- 2 to 3 ounces of ground sage.

If sage is not desired omit it and use only the salt and pepper in the above amounts.

Rendering Lard

Cook fat pieces until practically all the moisture is cooked off. Several tests tell when it is time to remove from the fire: (1) Numerous white blisters appear on the skin of the pieces; (2) the pieces when lifted out will fry themselves dry in a minute or two; (3) properly cooked lard has a characteristic straw color.

Care must be taken to keep the fat pieces from sticking to the kettle and imparting a scorched flavor to the lard. Start with a rather slow fire and stir the mass frequently while being cooked.

Curing

Salt is the basis of all cure and it makes little difference whether meat is cured in brine or by the dry cure method. However, the dry cure is somewhat simpler to use and requires less handling of the meat. A dry cure formula which has been used



Fig. 12—The ham trimmed and ready for curing.

very successfully by the author is made as follows: For 100 pounds of meat use:

- 8 pounds of salt (table or dairy salt)
- 3 pounds brown sugar
- 1½ ounces of saltpeter

Mix up ingredients well, being sure all lumps are worked out thoroly. Rub on half of the mixture on the first day and pack skin side down in a barrel or in stone jars. On the seventh day remove, clean out vessels and rub on remainder of mixture. Re-pack in barrel, skin side down but in reverse order to the first day. Twenty-one days after the cure has started, remove the bacons and small pieces, wash and smoke. Leave the hams and shoulders in cure 3 days for each pound that they weigh. Thus a 10-pound shoulder would stay in cure 30 days. Remove and wash, hang and allow meat to dry before smoking.

A brine cure for curing pork, recommended by the United States Department of Agriculture in bulletin No. 1186 "Pork on the Farm" is as follows:

Sweet Pickle or Brine-cured Pork.—Formula No. 2—For each 100 pounds of meat use:

- 9 pounds salt
- 2½ pounds sugar or 4 pounds molasses or sirup
made from sugar
- 2 ounces saltpeter
- 4½ gallons water.

If the weather is warm 10 pounds of salt are preferable.

Allow 4 days for curing each pound of ham or shoulder and 3 days for each pound of bacon and smaller pieces. For example, a 15-pound ham will take 60 days; a piece of bacon weighing 10 pounds, 30 days.

All the ingredients are placed in the water and thoroly stirred. The brine mixture should be prepared the day before it is to be used, so that it will be completely dissolved. Place the hams on the bottom of the container, shoulders next, bacon sides and small cuts on top. Cover with boards weighted with stones or bricks, as iron rusts and stains the meat. Pour the pickle in and be sure that it covers the meat thoroly. In 7 days take out all the meat, remove the pickle, replace the meat in the container, weight it down, then cover again with the pickle. Repeat this process every 7 days until cure is completed.

If the pickle becomes ropy, take out all the meat and wash it and the container thoroly. Boil the ropy pickle, or better, make new pickle. When each piece of meat has received the proper cure, remove it from the pickle and wash in lukewarm water.

With either the dry cure or brine cure it is best to cure meat in a cold, well-ventilated place, free from rodents. A good cellar makes an ideal place for curing.

Smoking

Hickory smoke gives the best flavor of any wood but when it is not available other woods may be used. Green apple, maple, oak, cottonwood and others give satisfactory results. Woods containing pitch should never be used.

Smoke with a slow fire to avoid any cooking of the meat and for a period of 25 hours or more. The meat should come out with a good straw color.

Storing

Cured meat should be hung in a cool dry place where there is good circulation of air. If to be kept a long time it should be wrapped in heavy paper and put in muslin sacks, tied properly to keep insects out and covered with yellow wash prepared and used as follows: (from United States Department of Agriculture bulletin 1186)

Recipe for Yellow Wash

For 100 pounds hams or bacon, use:
3 pounds barium sulphate
1 ounce glue (dry)
1¼ ounces chrome yellow
6 ounces flour.

Half fill a pail with water and mix in the flour, breaking up all lumps thoroly. Mix the chrome yellow in a quart of water in a separate vessel; add the glue and pour both into the flour and water mixture. Bring the whole to a boil and add the barium sulphate slowly, stirring constantly. Make the wash the day before it is required. Stir it frequently while using, and apply with a brush.