

BASIC BUTCHERING OF LIVESTOCK & GAME

TOOLS, EQUIPMENT, AND METHODS

A PROFESSIONAL BUTCHER, like a professional carpenter, has many specialized tools that make his work easier and help to make his finished job look better. This book is written for the do-it-yourself butcher who, like the do-it-yourself carpenter, wants to do a good serviceable job at the least cost. Special tools might make the finished product look better in the market, and so sell better; but we are interested only in how it looks and tastes on your dinner table.

Some are necessary, some are unnecessary but handy to have, and some are optional. For example, for veal or venison you only need one good all-purpose knife, such as a hunting knife, and a light rope, but a meat saw makes things easier. If you don't have a meat saw, a carpenter's saw will do.

For beef you need at least a couple of knives, preferably a skinning knife, a butcher knife, and a boning knife. You also should have a meat saw, but the job is made a lot easier with the use of an electric meat saw to split the carcass. For beef you do need some sort of lifting device: such as a block and tackle or come-along; rope, pulley, and tractor; or a single-tree. And you need a stunning hammer or gun and, of course, some good help.

Following is a list of equipment that is mentioned in the book. Where items are listed that you may not know by name, pictures or drawings are supplied. Some items have more than one use, such as the curved skinning knife used to skin beef and to stick hogs. Still, both jobs can be done with

something else, which is lucky because in the case of hogs, some of the butchering equipment is no longer made. For example, the double-edged sticking knife and the potash kettle are useful, but you'll only find them at an auction or antique shop. Many of the items listed, such as a tractor and scoop, are not essential, but if you have them handy, why not make use of them?

KNIVES AND ACCESSORIES:

- Skinning knife
- Butcher knife
- Boning knife (several styles available)
- Cleaver
- Bell scraper (for hogs)
- Sharpening stone
- Steel

SAWS:

- Hand meat saw
- Electric power meat saw (a similar saw made for wood is often used to split the backbone on beef)
- Electric band saw

LIFTING EQUIPMENT:

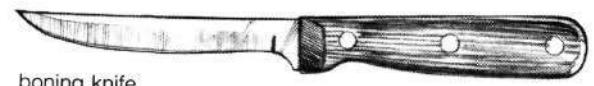
- Block and tackle
- Come-along
- Ropes
- Gambrel stick
- Singletree
- Tractor and pulley
- Tractor and scoop
- Hog hook or hay hook

OTHER EQUIPMENT:

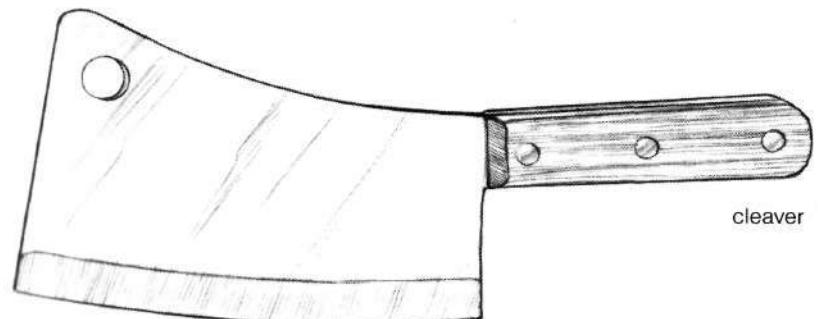
- Axe
- Stunning hammer
- .22 single-shot rifle
- 55-gallon drum, potash kettle, or 95-gallon stock tank to hold water to scald hogs
- Meat grinder
- Sausage stuffer



fillet knife



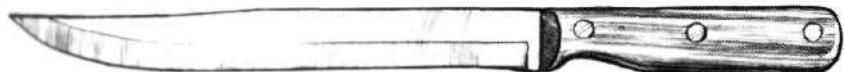
boning knife



cleaver



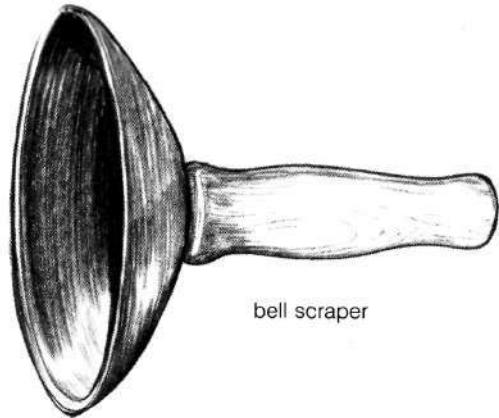
sharpening steel



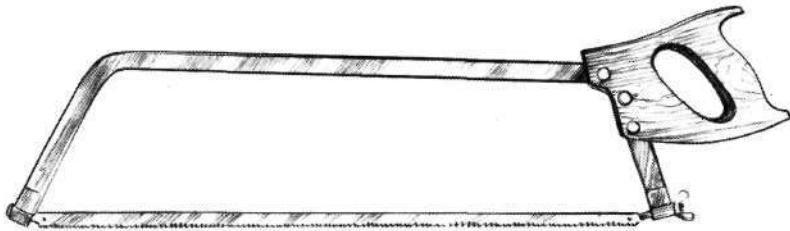
carver slicer



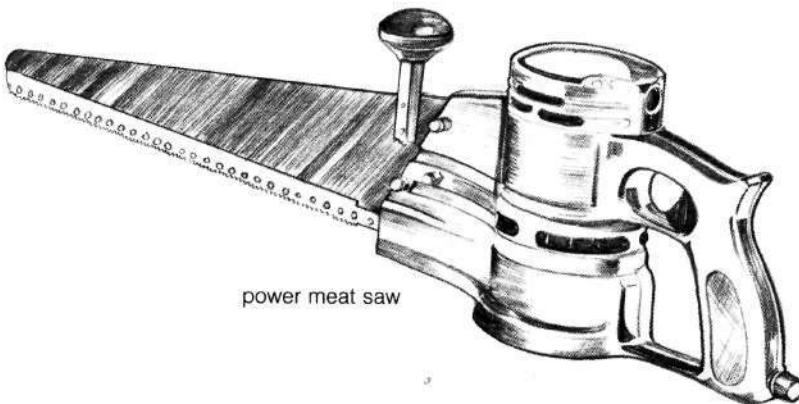
butcher knife



bell scraper



meat saw



power meat saw

Pails

Garden hose

Crocks for brine for salting (pottery or stoneware, wooden barrels, or heavy plastic garbage cans)

Floating thermometer

Hydrometer

Butcher string, freezer paper, and tape

SMOKEHOUSE:

Conventional, barrel, or small hobby size

More important than the variety of tools you have is how you use them. You can't do a good job of butchering without a sharp knife. Knives are sharpened on a stone at a 15- to 20-degree angle. Setting a sharpening stone in a frame made of 1/4-inch wooden molding on a wooden work bench permits you to make full, even strokes from the heel of the knife to the point, and that allows even wear on the stone and on the knife. Most people can sharpen a knife on a Carborundum stone, or better yet use a Carborundum stone followed with an oil stone. However, you can't get a really fine edge on a knife without the use of a steel, probably the most misunderstood and most necessary piece of equipment the butcher uses.

When a skilled professional butcher uses a steel he touches the blade to the steel in a full stroke so lightly you can hardly hear the stroke. Slashing at the steel with a clatter, stroking so rapidly that the knife is a blur, is a sure sign of an amateur. To use a steel, hold it steady in one hand and with the knife in the other stroke ever so gently from the heel of the knife at the point of the steel to the point of the knife rubbing off at the base of the steel. Maintain the 15- to 20-degree angle of the blade to the steel as you did on the stone. Once a knife is sharp enough to shave with, even two or three strokes on each side every few minutes of work is all that is needed.

Meat saws can usually be sharpened by the same person who sharpens your hand carpenter's saws.

When you are through using butcher equipment, clean it all well, spraying metal parts with light oil if necessary, and store everything in a dry place. When you're ready to butcher

again, spend a short time checking your equipment over, and wash it with detergent and hot water. Germicides for slaughter and butcher equipment are available, but for home use nothing beats detergent and plenty of hot water for getting rid of grease and dirt.

There are certain general observations that apply to slaughtering and butchering that are not necessary to repeat in the chapters dealing with specific animal species. For example, we can't influence the weather, but from experience you know when to expect the kind of weather you need for slaughtering. Keep weather in mind when you buy young pigs or as early as when you breed your ewes so as to have pigs or lambs ready for slaughter at the ideal time of year. Listen to long-range weather forecasts and pick a day to slaughter at the beginning of a period when daytime temperatures are 32° to 40° and nights go down to 25° but not much lower.

In order to butcher one must kill, but there is no need to be inhumane. The quality of the animal's life — that it has had sufficient food, clean shelter, and kind treatment from birth to death — is important; and death must come to all creatures at some time. The animal must be killed quickly, with little or no pain, but more important is that death comes without fear. To allow an animal to become frightened at slaughter is not only cruel, but unwise, for it causes the release of adrenaline, which some believe can affect the quality of the meat. Also, fear may cause the animal to struggle, doing damage to its meat or injuring the person slaughtering. Select the method of killing that will upset the animal's routine the least, thus avoiding fear, and select a method that is sudden, thus avoiding pain. Don't forget, however, that the heart must continue to pump briefly after death in order for the animal to bleed properly. Avoid sticking the heart of a pig, and don't delay cutting the throat of an animal that has been shot.

When you are cutting skin, cut from the inside out, particularly on deer and sheep, to avoid loosening cut pieces of hair or wool, which will give the meat a bad flavor.

One home butcher told me, "The secret of good-tasting meat is clean hands." Have soap, water, and paper towels

handy while you are butchering. A garden hose long enough to use to spray a carcass is an excellent sanitary aid.

Construct your own cutting tables to heights that are comfortable for you to work at in a place that is cool and airy yet not drafty.

If you don't have access to a walk-in cooler to chill fresh carcasses, a double-walled (insulated) room with sliding doors to the north to allow you to regulate temperature is the next-best thing. When the weather is warm, close the door during the day and open it at night; when it is cool, close at night and open during the day.

Federal law prohibits sale of beef, veal, lamb, and pork not slaughtered at facilities under federal or state inspection. Thus you or your family are the ultimate consumer of your meat and the sole judge of how good a job you have done. As you cut, trim, and pack, keep that in mind so that packages are the correct size and cuts are those your family will enjoy most. If they like steak and stew better than roasts and hamburger, process the cuts accordingly.

Don't be afraid to improvise ways of cutting, tying, or preserving. Exchange ideas with other home butchers, listen to everyone, but do the job in the way that works best for you.

BEEF

One might say that until you have butchered a veal or lamb you shouldn't tackle a full-grown beef animal. Still, if you can round up at least one good helper and preferably two or three, and if you have the courage to try, you can butcher a beef easier than any other meat animal, on a pound-for-pound basis. If you have an experienced neighbor, you could be the helper when he butchers and then have him help you. Hands-on learning is the best way.

The Best Animal for Beef

The preferred beef animal is a steer at least 30 months old that has been confined to a stall or small pen and fattened on corn the last 30 to 60 days of its life. A heifer the same age will make nearly as good beef. In fact, a heifer 30 to 150 days pregnant will make better beef than either a steer or an open (unbred) heifer.

A cow or bull at least 30 months and up to about 5 years of age will make good beef if it has been confined to a stall and fattened for 60 to 90 days. Even after that the good quality of beef from certain individuals is amazing. A "short milker" (a cow that dries up too soon), pregnant about 90 days and fat, will make surprisingly good beef. In this hamburger age some farmers find that butchering an old cow and grinding everything but the most choice cuts is a good practice. However, don't grind beef until you've sampled a

few cuts as roasts or steaks. I've seen cows as much as 11 years old that made good beef after standing in the barn all winter taking on fat.

Unless they are beef bred, animals under 24 months of age are usually half beef, half veal, and can be either tough or lacking flavor, or both.

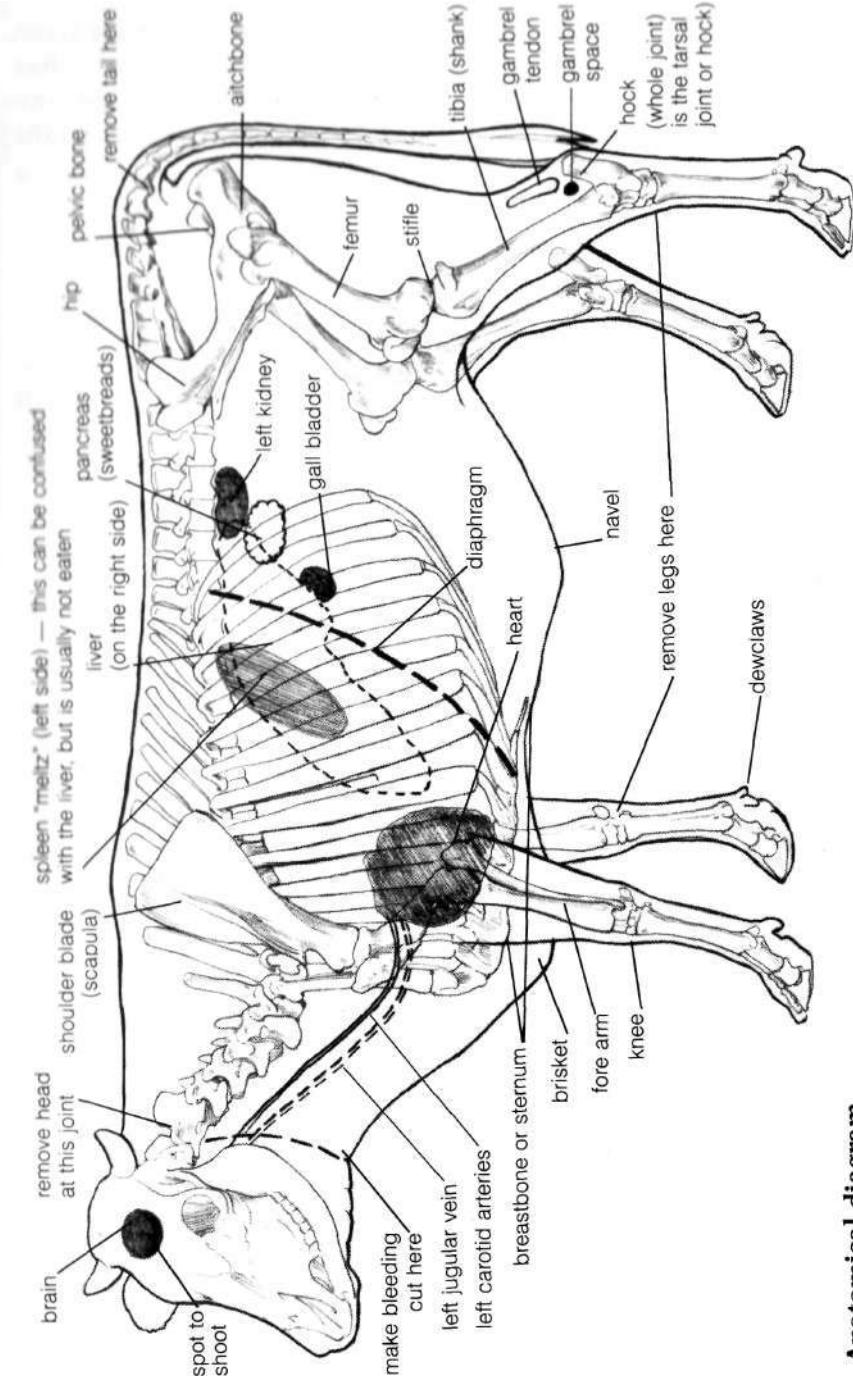
Getting Ready

Unless you have a place to hang and age it, plan your beef butchering for late fall, late winter, or early spring. A clear day in the low 40s is perfect. Confine the animal to a small, clean pen and withhold feed for 24 hours. Allow access to water. It takes days to really starve out a full-grown beef, but 24 hours without hay or grain will reduce some volume and weight when you are removing the viscera of your beef.

Before you start to butcher, get all your tools together and ready in the butchering area, which should be clean and swept free of dust, cobwebs, and hay overhead that could fall while you are butchering and hanging your beef. You will need at least one sharp butchering knife, a skinning knife and an extra knife for each helper, with a steel and sharpening stone. For cutting up beef you will need at least one boning knife. A hand meat saw or electric power saw are handy, but a carpenter's saw can be substituted.

A stunning hammer or a gun is needed to kill the animal. Some people consider a .22 too small, but if properly used with long-rifle ammunition it is big enough. For lifting you will need a block and tackle, a come-along, or a rope and pulley and tractor to pull it. A heavy singletree is usually safer to use than a gambrel stick. A heavy 1 1/2-inch pipe with a ring welded in the center to keep the lift from slipping sideways may also be used for a metal "gambrel stick." But unless the rear legs are wired or secured in some way, the carcass may slide off the pipe while you are splitting or quartering which could cause serious personal injury or loss of the meat to spoilage.

You should have pails, soap, and paper towels and, if possible, a water hose with water left running a bit to keep from



Anatomical diagram.

freezing if the temperature is below 30°. Containers for liver, heart, and sweetbreads, and a means of disposing of other insides, should be ready ahead of time. String to tie the animal's anus, or bung, should be handy when you need it. Light ropes, an extra rope halter, and an axe should be available but may not be needed.

Killing and Skinning

When all is ready, shoot or stun the animal, not by a blow between the eyes, but by striking above the eyes and just off center of the forehead (figure 2.1). If you drew a line from each eye to the opposite horn, forming an X, the spot to aim for would be just beside where the lines crossed, as shown. For shooting cattle a shotgun at 12 to 18 inches is deadly and less dangerous to people and other livestock than a rifle or pistol. No matter how you kill the animal be as humane as possible.

The animal's throat should be cut immediately after the animal is shot or stunned. Cut just behind the jaw (figure 2.2). Be sure to cut as deep as the bone to get not just the jugular vein but the carotid arteries as well. You can tell you've cut the arteries when you see and hear blood spurt.

If you have a tractor with a lift capable of safely picking up the animal, you can kill it right in the stall and then carry the dead animal by the hind legs to where you are going to butcher. A quiet animal, of course, may be led to the butchering area, or you can kill the animal and then drag it with a tractor or tackles to where you are going to butcher.

If you have done a good job of cutting both carotid arteries, the animal will bleed out well whether you hang it up or not. As soon as you are sure that the animal is dead, cut off the dewclaws of each rear leg and skin from there toward the body until you have uncovered the hocks (figure 2.3). Hook the hocks from a singletree through the gambrel space (figure 2.4). When the hocks have been carefully secured in the gambrel space you may remove the legs at the location shown in the anatomical diagram on page 11. Use a saw if you can't find the exact joint. Be careful not to cut the legs off too close

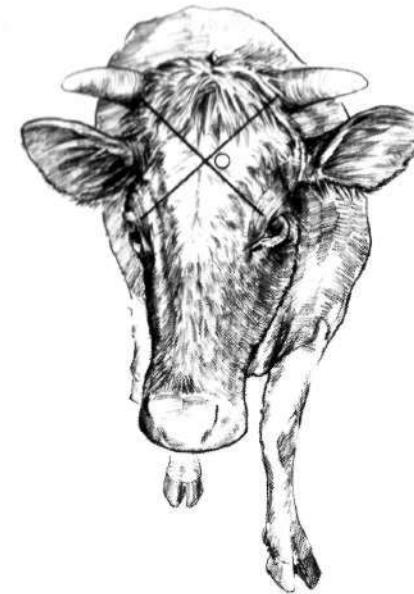


Figure 2.1: Shoot or stun the animal by a blow above the eyes, and just off the center of the forehead.



Figure 2.2: Cut the animal's throat immediately after it has been shot or stunned. Cut just behind the jaw and as deep as the bone in order to get the jugular veins and carotid arteries.

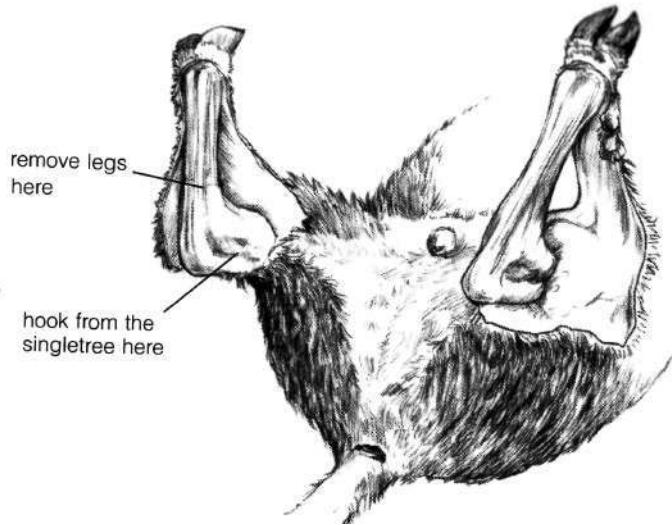


Figure 2.3: Skin the rear legs from the dewclaws toward the body until you have uncovered the hocks.

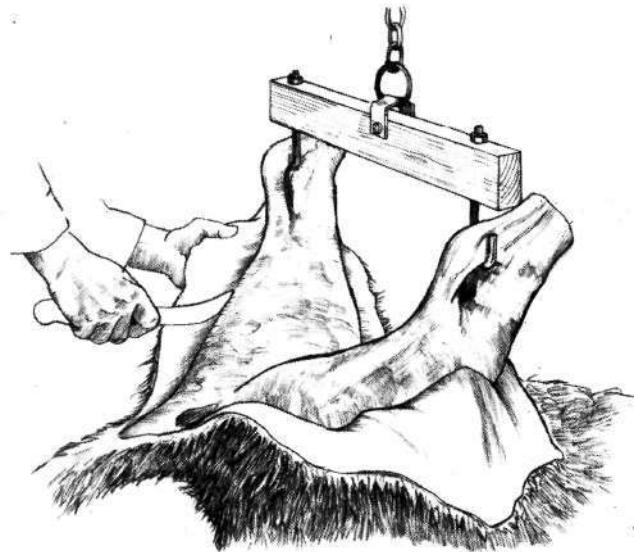


Figure 2.4: Hook the hocks from a singletree through the gambrel space and skin the rounds. After the hocks are secure in the gambrel space, remove the legs at the place shown in the anatomical diagram and in figure 2.3.

to the hock or the carcass may pull loose of the gambrel space and fall off the singletree. As you continue skinning start to raise the animal with a block and tackle, heavy come-along, or pulley and rope pulled by a tractor. If you have a big enough tractor and small enough animal, a chain attached to the scoop of a tractor will do the job most easily.

Remove the skin as you lift, cutting the skin from the inside out where possible to avoid getting cut pieces of hair on the meat. Have warm water and paper towels handy so you can wash your hands every time they get soiled and before you touch any meat. It has been said that the secret to good-tasting meat is clean hands, so it will be worth the effort to take cleanliness seriously.

Before you lift the carcass you should have cut around the bung and tied it off with a string so manure can't leak out (figure 2.5). Also, while the animal is still touching the ground, you can expose the flesh over the breastbone and brisket and, with a saw, split the breastbone from the brisket to the rear of the breastbone, being careful not to cut too far back and puncture the stomach (figure 2.6). Now lift the carcass a little and cut into the abdominal cavity just ahead of the pelvis (in the area just forward of where udder or testicles would be). Take your time and be very careful here not to puncture an intestine. As you reach the abdominal cavity air will rush in, and you will have more room to work. Lift the animal higher, drop more skin, and using your fingers as a guide, or with your fist holding the knife in and the blade out, use the heel of the knife to open the abdomen on the midline all the way to the rear part of the breastbone (figure 2.7).

Raise the animal clear of the ground, remove the hide, and cut off the front legs. Leaving the hide on the forequarter until now protects the meat from getting dirty. Now reach up into the pelvis from the inside, find the bung, and pull it down. Dissect the bung — and all the insides you can — from their attachments, and literally roll the whole mass out onto the ground (figure 2.8). Cut the paunch (rumen) free from where the gullet (esophagus) comes through the skirt (diaphragm). Or better yet, cut the diaphragm and remove the lungs and heart with the gullet still uncut. Remove the liver.

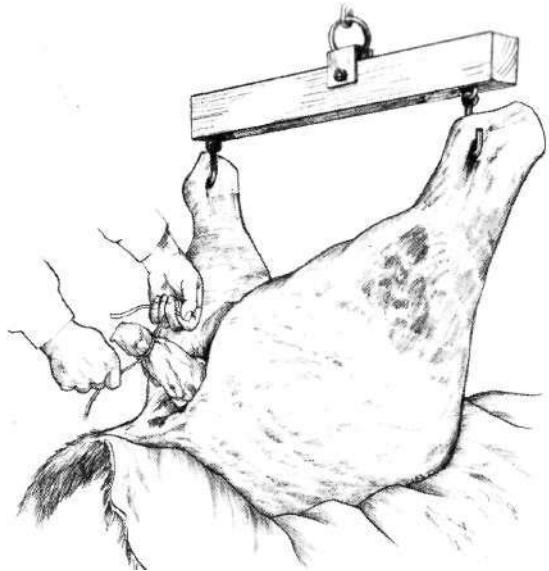


Figure 2.5: Dissect the bung and tie it off with a piece of string.
Do not lift the carcass until you have done this.



Figure 2.6: Expose the flesh over the breastbone and brisket. Then, with a saw, split the breastbone from the brisket to the rear of the breastbone. Be careful not to cut too far back or you may puncture the stomach.



Figure 2.7: Raise the carcass a bit and skin to the point shown. Next, cut into the abdominal cavity just ahead of the pelvis. With your fist holding the knife in and the blade out, open the abdomen on the midline all the way to the rear part of the breastbone.

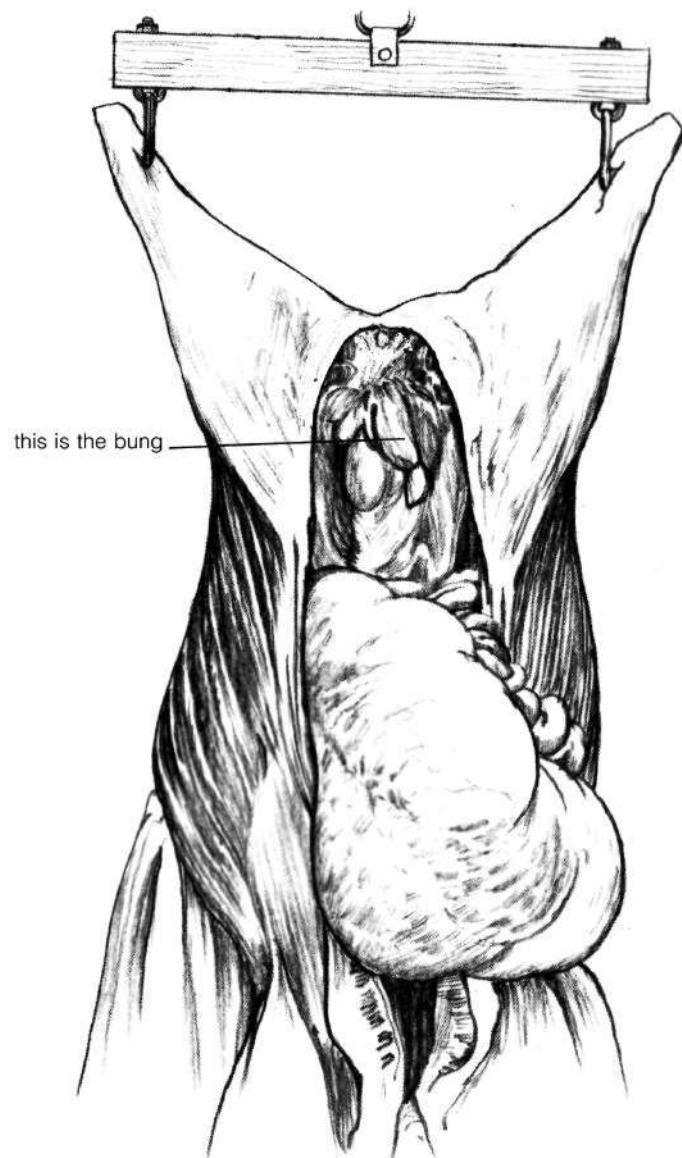


Figure 2.8: Reach up into the pelvis from the inside, find the bung, and pull it down into the open cavity. Dissect the bung and other visible organs from their attachments, and roll it all onto the ground.

cut out the gall bladder, and hang the liver to cool. If you can find the belly sweetbread (pancreas) under and behind the liver on the animal's right side, remove it and slide the rest of the insides out of the way so as to avoid tripping on them and falling.

Spread the breastbone with a stick and cut the skirt (diaphragm) close to the ribs and remove the "pluck" (heart and lungs). Save the heart. Open it to remove the blood clot, rinse, and hang to cool. Take the windpipe and gullet out all the way to where you cut them when you cut the animal's throat. Remove and save the tongue. Now remove the head at the first joint between the head and neck (figure 2.9). If you wish, dissect the cheek meat away from the jaws. It is good meat for stew, or you can feed it to the dog.

If you are not sure you have removed all the debris from the pelvic canal, you may now split the pelvis with a saw on

Figure; 2.9: Remove the skinned



the midline in the area where the testicles or udder hung. This will make it easier to trim away visible nonedible material such as glands, portions of the penis, or tissue contaminated with dirt or manure. Now rinse the inside of the carcass with cold water from a hose or thrown from a pail to remove any loose blood clots or contamination from dirt or intestinal contents.

Quartering and Butchering

Split the carcass by sawing down the length of the backbone, leaving the two equal halves of the carcass joined by the last few inches of neck tissue (**figure 2.10**). Splitting can be done with an axe or large cleaver, but that takes skill. Electric power saws are made for the job. If you can borrow one it will be a great help. In some areas where several people butcher, neighbors may buy one as a community property. You may also use a carpenter's power saw and, if you don't have a hand meat saw, you can substitute a carpenter's hand saw.

If you're lucky the temperature will remain between 32° and 40° so your beef can age properly for a week before you cut it up. Hanging the carcass in a cool shed or barn out of the sun is perfect. If the weather turns warm try to find a place with refrigeration in which to hang your beef. If the weather turns cold enough to freeze the meat, you may be able to quarter and hang it in a protected area such as a cellar way or garage. The ideal place to hang meat (besides a walk-in cooler) is a tight yet well-ventilated building on the north side of the house that can be opened at night to cool and closed in the daytime to keep the coolness in.

After a week or ten days of hanging, your beef is ready to cut, unless you have been forced by warm weather to do so sooner. If meat was cooled rapidly and completely during the first 24 hours after slaughter, it can stand a day or so of up to 50°, but if the meat is not properly cooled it is better to cut it up immediately than to risk spoiling.

First, quarter the split carcass by cutting between the last two ribs of each half. You'll need help to do this, but even

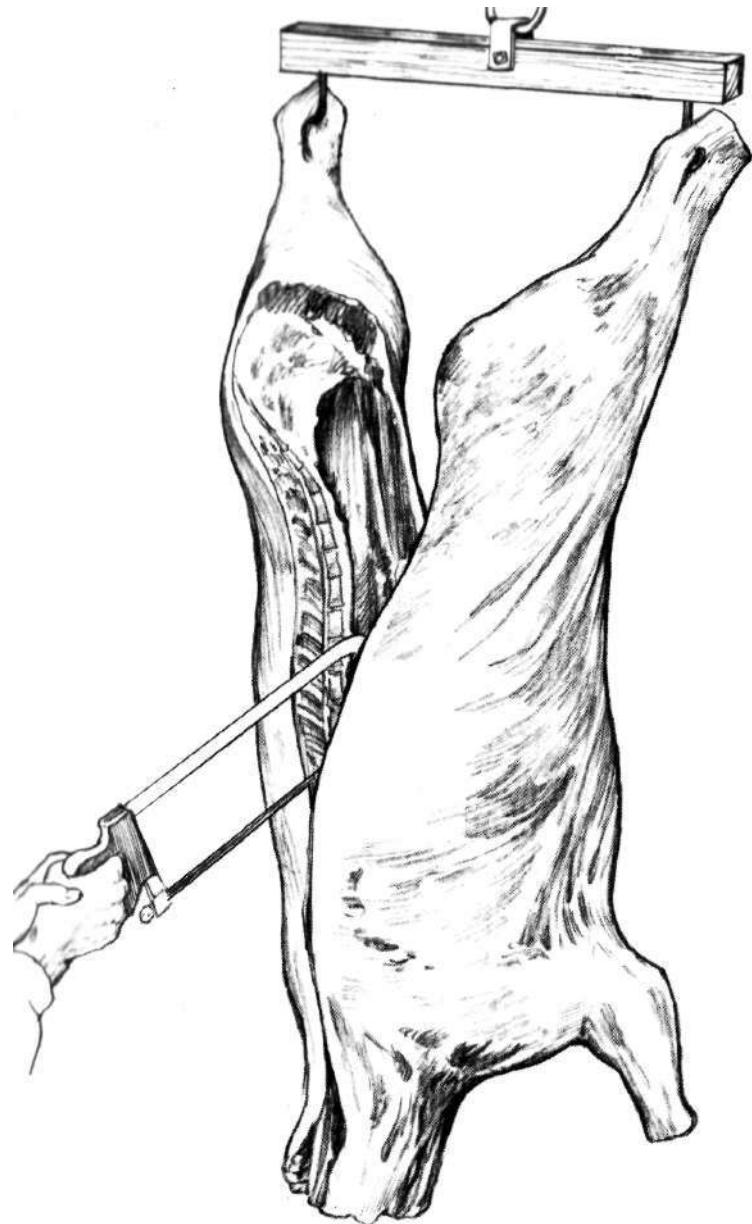


Figure 2.10: Split the carcass by sawing down the length of the backbone, leaving the two equal halves joined by the last few inches of neck tissue.

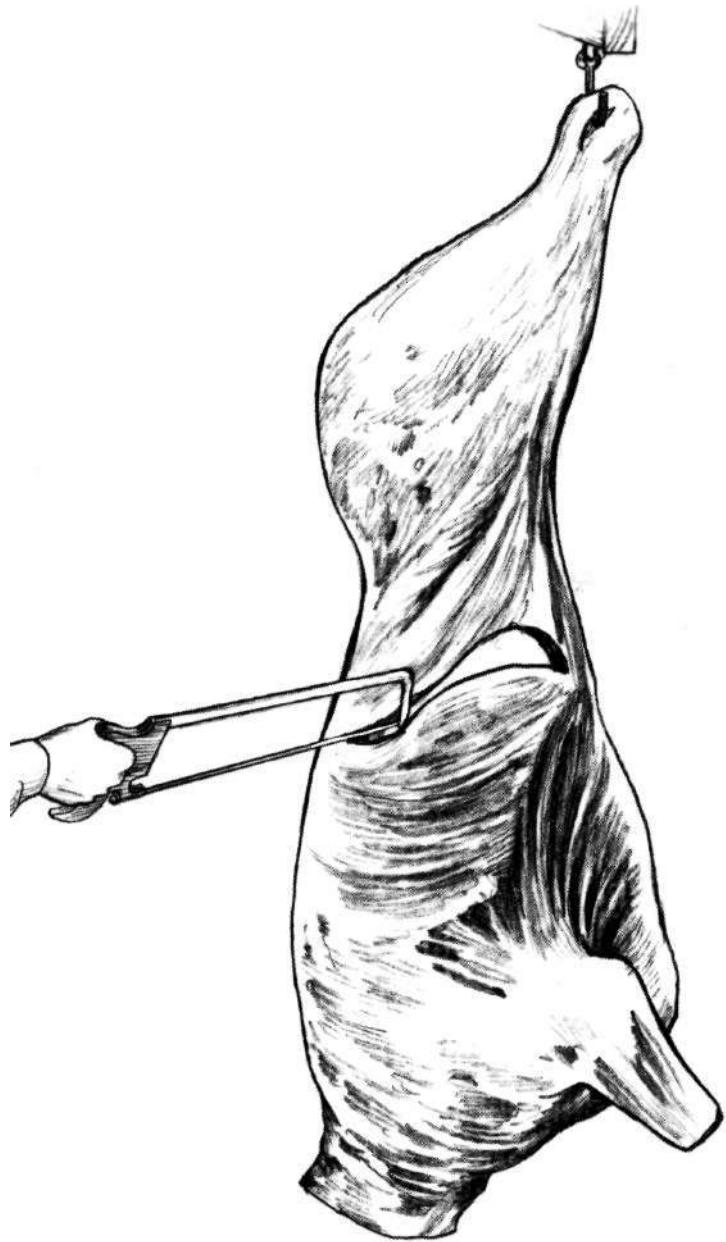
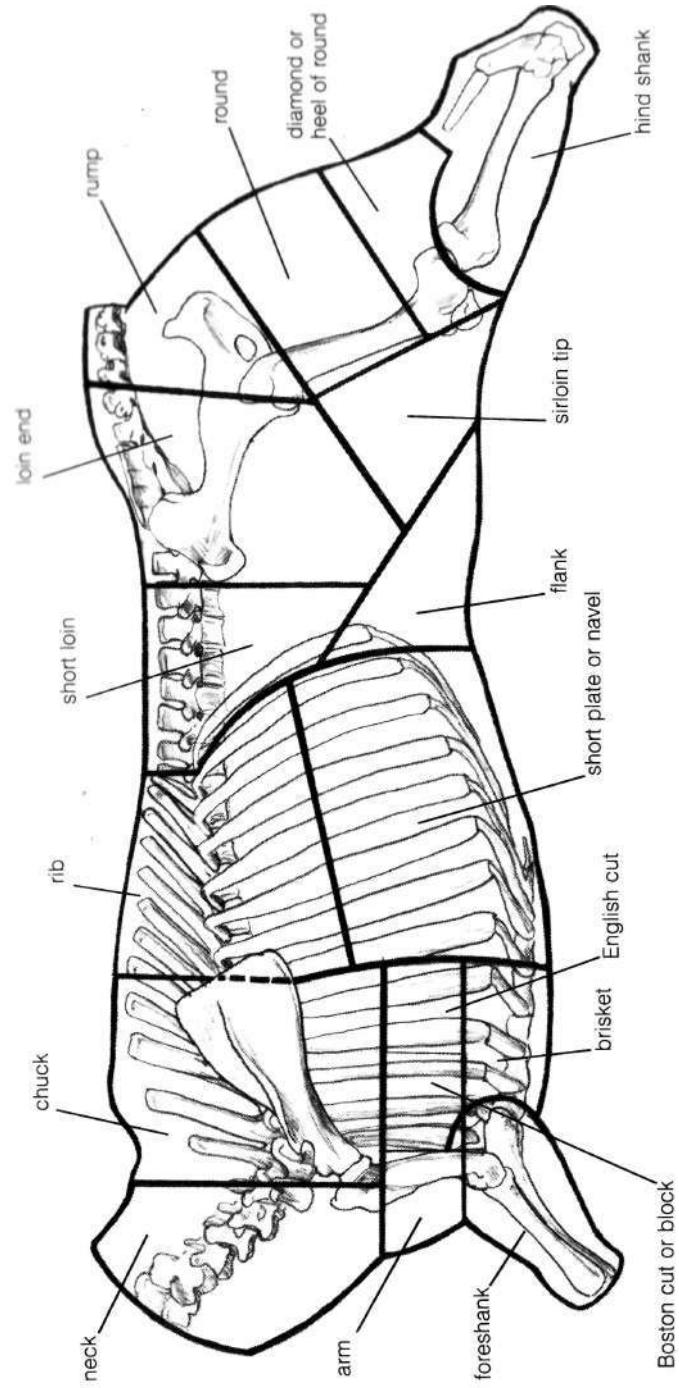


Figure 2.11: Quarter the split carcass by cutting between the last two ribs on each half of the carcass. Leave some flank to hold the quarter together while you saw through the backbone.



so, leave some flank to hold the quarters together while you saw through the backbone (figure 2.11).

A good solid table with a wooden top will be needed on which to cut the meat. If you construct your own you can make it a comfortable height to work on. Three-quarter-inch plywood makes a good work surface since it is easily cleaned and is not apt to splinter. Butcher blocks are fine too, and big enough for most meat; but for beef you will need a table at least 3-by-4 feet or larger.

You are now ready to cut up the first forequarter of your beef, producing ribs, plates, steaks, and other cuts. Each bold letter refers to a corresponding illustration which demonstrates that particular procedure.

2.A. The forequarter should be laid on the table inside up. Make a cut with a knife as far as you can between the fifth and sixth ribs, counting back from the front.

2.B. Turn the quarter over and with your saw continue the cut you started in 2.A, dividing the shoulder blade, backbone and breastbone. You now have two pieces, the rearmost being the rib.

2.C. With a knife, and finishing with the saw, cut through the rib about 2/3 of the way between the top and bottom. You now have rib (1) and short plate or navel (2).

2.D. You may now make rib steaks (1) or Standing Rib Roasts (2), or you can bone out the piece into a Rolled Rib Roast (3). In order to make the rolled rib, besides removing ribs and backbone (4), you must remove the yellow back strap and the cartilage that makes up the top of the shoulder blade.

2.E. Use the plate to cut into 2-inch strips for shortribs. Bone the rest for stew or use as soup bone.

2.F. Cutting parallel to the backbone, separate the shank (1) and brisket (2) from what remains of the forequarter. Bone the brisket as pot roast or, better yet, corn it (see page 148). Divide the rest of the forequarter into the arm (3) and block (4).

2.G. Separate the arm (1) from the block (2) by cutting behind and parallel to the bone in the arm. Bone the arm and, after removing extra fat, roll for pot roast.

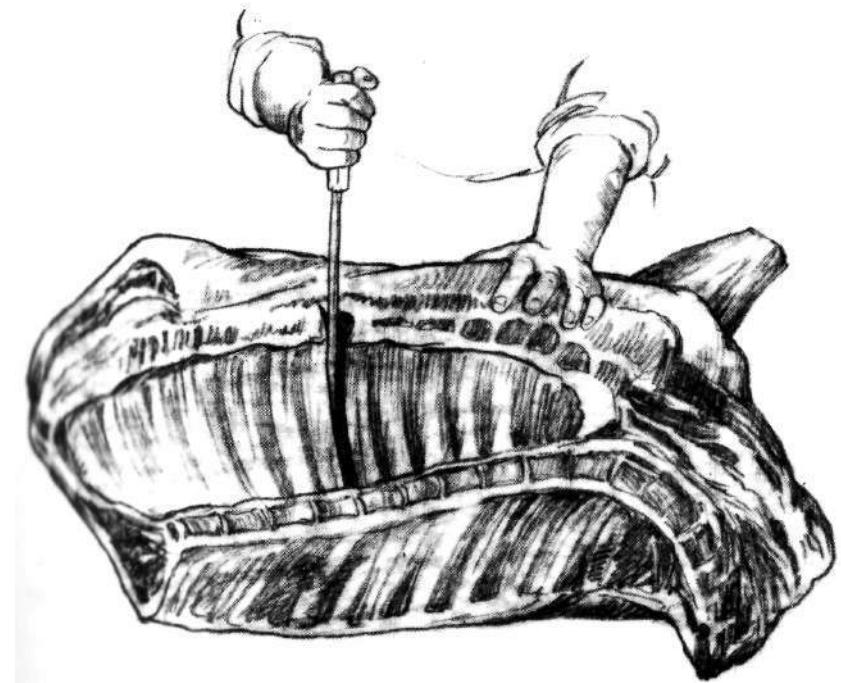


Figure 2. A: Lay the forequarter on the table with the inside facing up. Counting back from the front, cut with a knife between the fifth and sixth ribs.

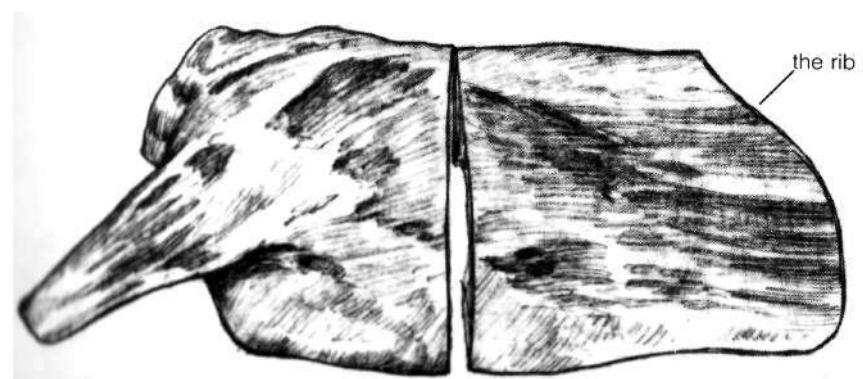


figure 2.B: Turn the quarter over, and with a saw continue the cut you started, which will divide the shoulder blade, backbone, and breastbone.

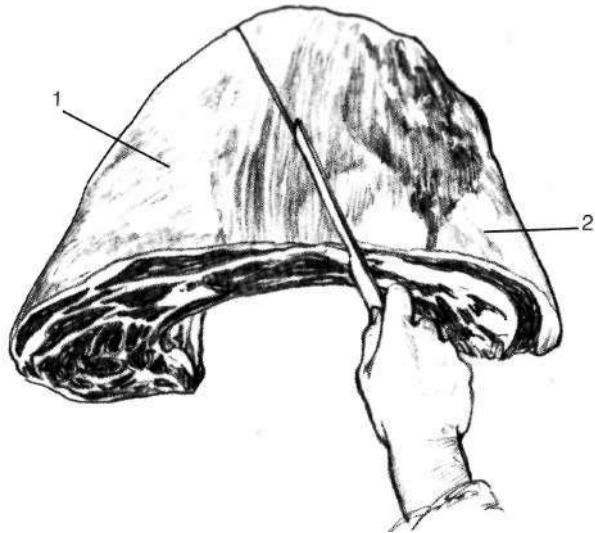


Figure 2.C: First with a knife, and then with a saw, cut through the rib about 2/3 of the way between the top and the bottom. You now have the rib (1) and the short plate or navel (2).



Figure 2.D: From the rib you can now make rib steaks (1), Standing Rib Roasts (2), or you can bone out that piece to make a Rolled Rib Roast (3). Before you can make a rolled rib, you must remove the ribs, backbone (4), yellow back strap, and cartilage that makes up the top of the shoulder blade.

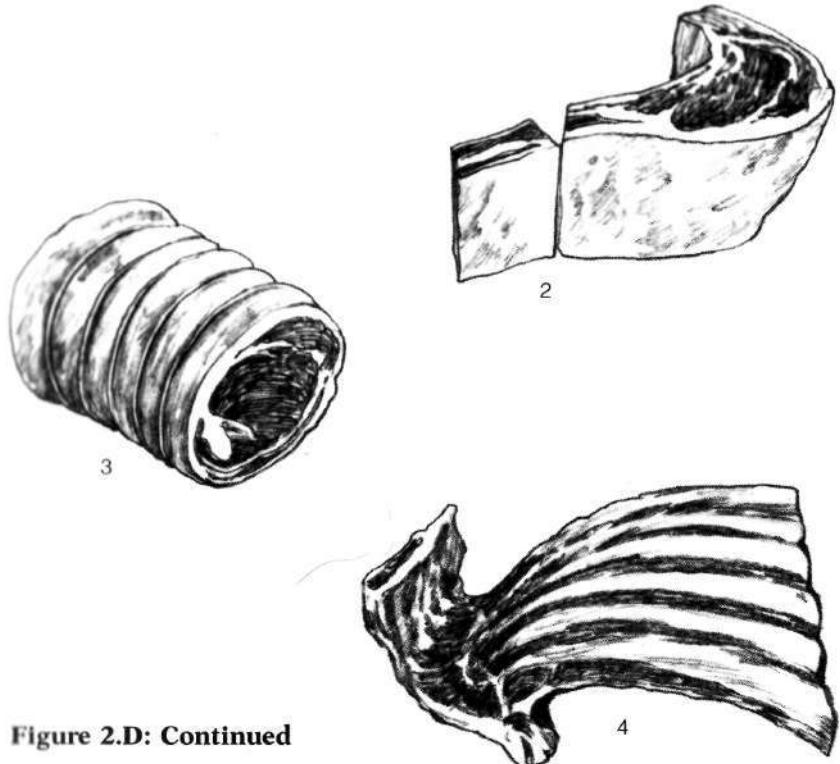


Figure 2.D: Continued

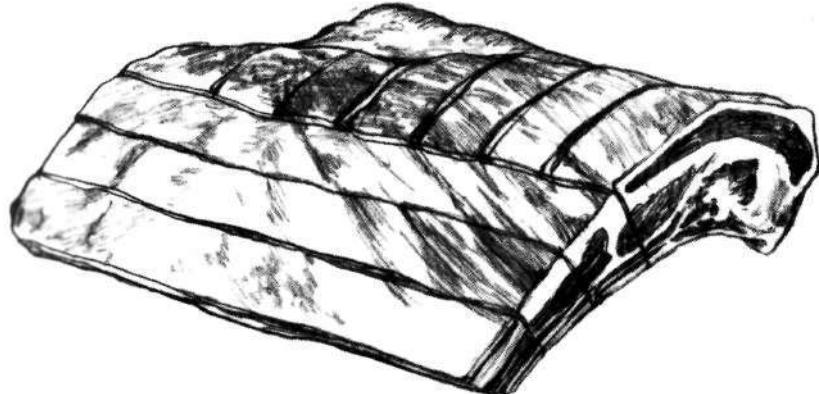


Figure 2.E: Cut the plate into 2-inch strips to make shortribs.

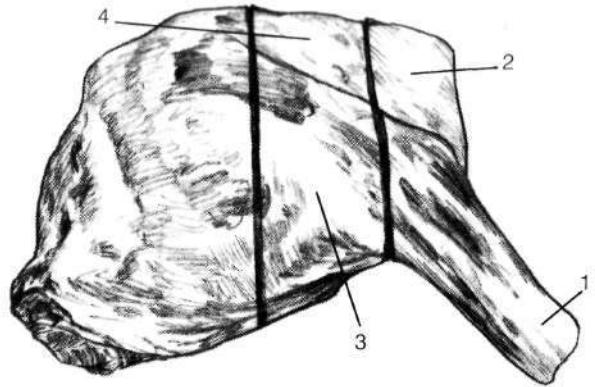


Figure 2.F: From the other half of the forequarter, make two cuts parallel to the backbone. You will work first with the shank (1), the brisket (2), the arm (3), and the block (4).

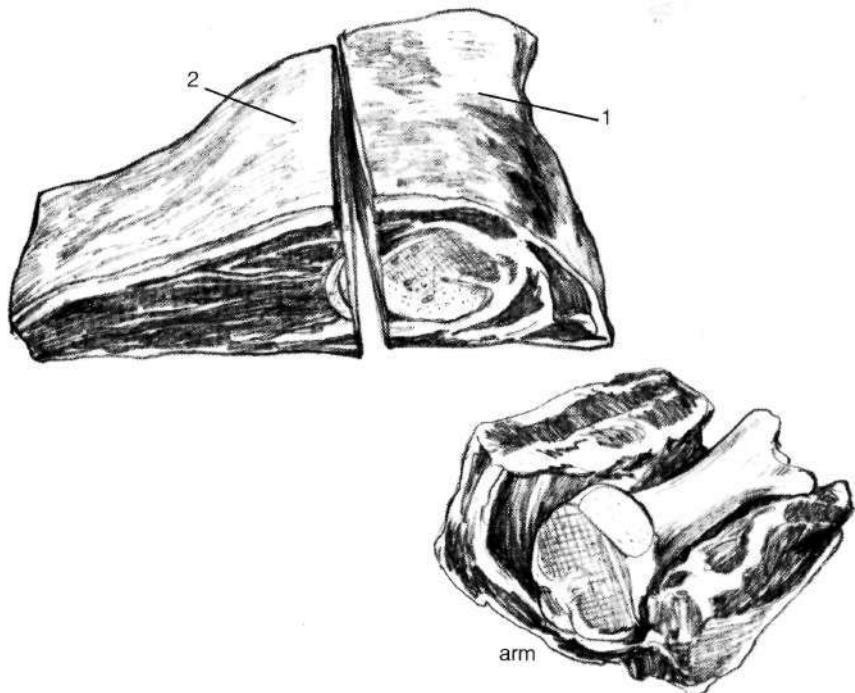


Figure 2.G: Separate the arm (1) from the block (2) by cutting behind and parallel to the bone in the arm. Bone the arm, remove excess fat, and roll for pot roast.

2.H. Separate the block (1) from the English Cut (2) leaving two ribs on the English Cut. With rib removed these cuts are also referred to as Boston Cut or Cross Rib.

2.1. Working on the head end of the forequarter, separate the neck (1) from the shoulder just ahead of the shoulder joint, and the chuck blade (3) from the shoulder (2) by a cut just behind the joint. Use neck and shoulder as pot roast, stew meat, or ground beef. Cut the chuck blade into steaks or bone out and roll into pot roasts.

While you have been cutting the forequarter a helper can have been wrapping, labeling, and putting meat in the freezer. The sooner that is done the better. Stew meat should be trimmed of most fat and other sinewy or bony tissue. Meat for hamburger should be ground, wrapped, and frozen as soon as possible, too. If you do not have help enough to do this, cut the forequarter only into major cuts, keeping them cool until you have time to cut and wrap them into smaller serving sizes.

To start cutting up the hindquarter, lay it inside up and trim out the kidney fat and kidney. Remove arteries, veins, and fat from around the kidney, but if you're going to freeze it leave the membrane covering each lobe in place so the tissue will not dry out (freezer burn) so badly.

2.I. Make one long cut to remove the flank (1), varying the distance from the eye of the loin (2) to govern the size of the tail on the Sirloin steaks.

2.K. The Flank Steak is an oval-shaped muscle that is found in the flank and is too often missed or wasted. Although the rest of the flank is used as stew or hamburger, this cut, sliced on the diagonal, makes delicious London Broil.

2.L. Dividing the remainder of the hindquarter, make a cut parallel to, and about 1 inch from, the aitchbone (pelvis) (1). Separate the rump (2) from the round (3).

2.M. Make 2 cuts parallel to the long bone (femur) (1) of the round from the stifle or knee joint to the cut in 2.L. This will make it possible to remove the tip of the round as shown next.

2.N. By cutting through the stifle joint you may pull the tip of the round free.

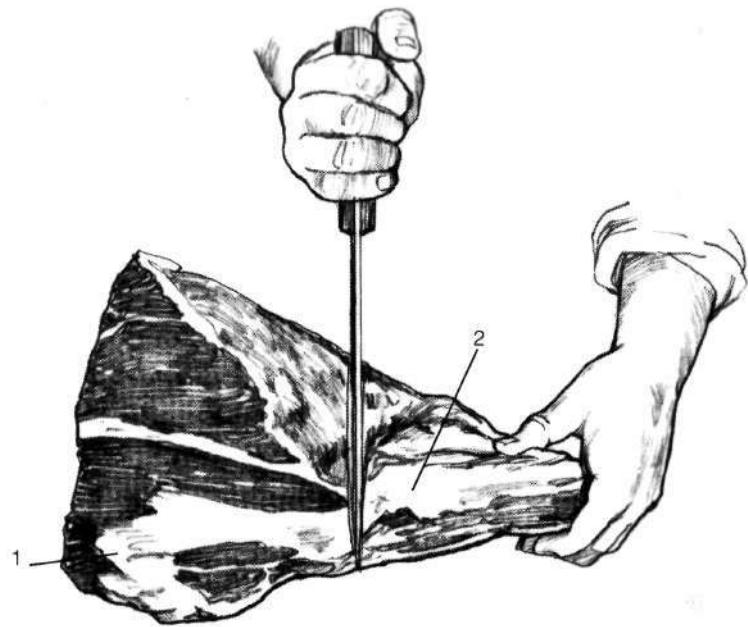


Figure 2.H: Separate the block (1) from the English Cut (2), leaving two ribs on the English Cut.

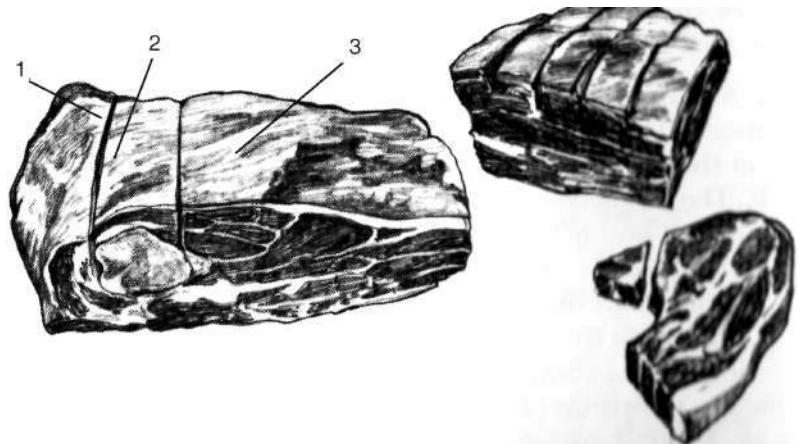


Figure 2.1: Working on the head end of the forequarter, separate the neck (1) from the shoulder just ahead of the shoulder joint, and separate the chuck blade (3) from the shoulder (2) by a cut just behind the joint. Cut the chuck blade into steaks or bone and roll into pot roasts.



Figure 2.J: Working now on the hindquarter, make one long cut to remove the flank (1). Vary the distance from the eye of the loin (2) to govern the size of the tail on the Sirloin Steaks.

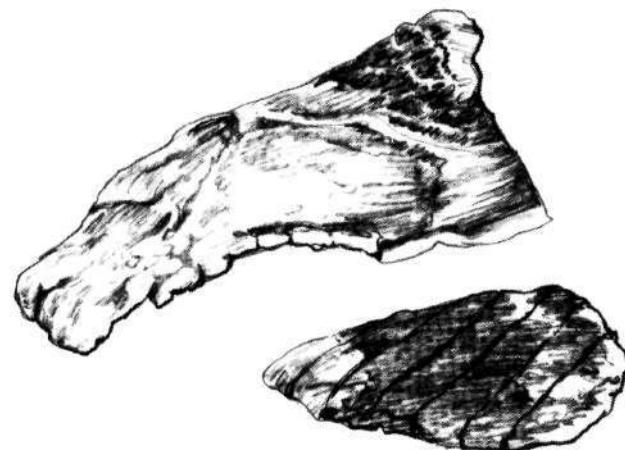


Figure 2.K: The Flank Steak is an oval-shaped muscle found in the flank that is often missed or wasted. This cut makes delicious London Broil.

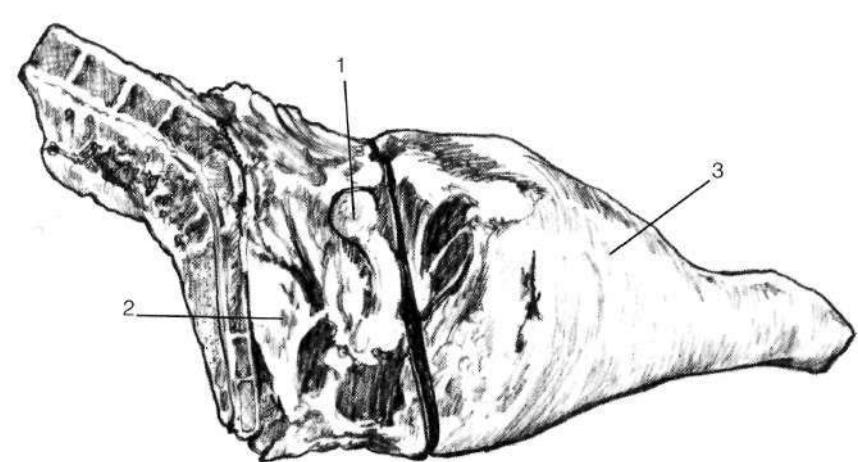


Figure 2.L: On the remainder of the hindquarter, make a cut parallel to, and about 1 inch from, the aitchbone (pelvis) (1), and separate the rump (2) from the round (3).

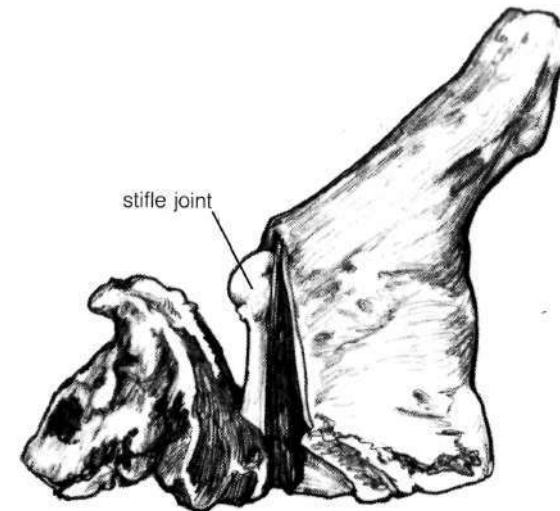


Figure 2.N: By cutting through the stifle joint you may pull the tip of the round free.

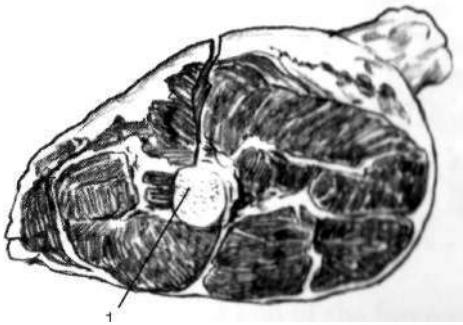


Figure 2.M: Make two cuts to the long bone (1) of the round, from the stifle or knee joint to the cut in figure 2.L.

2.O. Make a cut as shown parallel to the end of the round about 1 inch above the stifle. Cut through the femur bone with your saw.

2.P. Remove the femur from the round and then divide it into bottom (1) and top (2) round, or outer and inner. You will find a natural division between the single muscle of the top round and the bottom round, which appears to be two muscles.

2.Q. You may make steaks or roasts out of bottom round (1), top round (2), and tip (3). Top round is of highest quality, bottom excellent but not quite as tender, and tip is broiling quality only in better-quality animals.

2.R. Cut the gambrel tendon loose and, by following the shank bone with your knife, remove the heel of the round for pot roast. Trim the rest of the shank for stew or ground beef. The shank bone makes a good soup bone.

2.S. Make a cut with knife and saw as shown about 1 inch in front of the aitchbone (1). This will separate the rump from the loin.

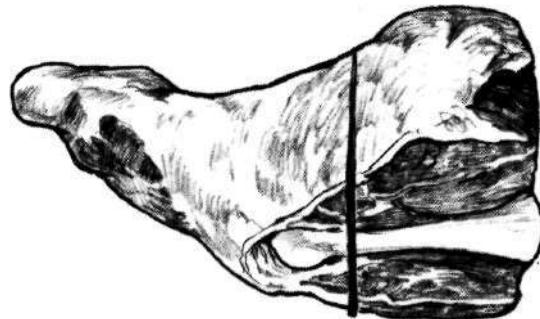


Figure 2.0: Make a cut as shown parallel to the end of the round about 1 inch above the stifle. Cut through the femur bone with a saw.



Figure 2.P: Remove the femur from the round and then divide It into bottom round (1) and top round (2).

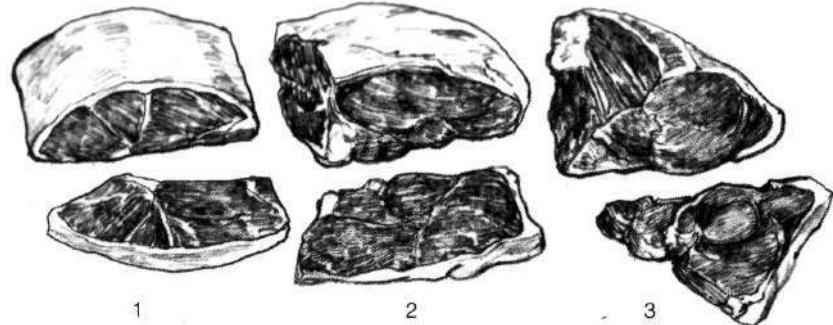


Figure 2.Q: You may make steaks or roasts out of bottom round (1), top round (2), or tip (3).



Figure 2.R: Cut the gambrel tendon loose, and by following the shankbone with your knife, remove the heel of the round for pot roast.

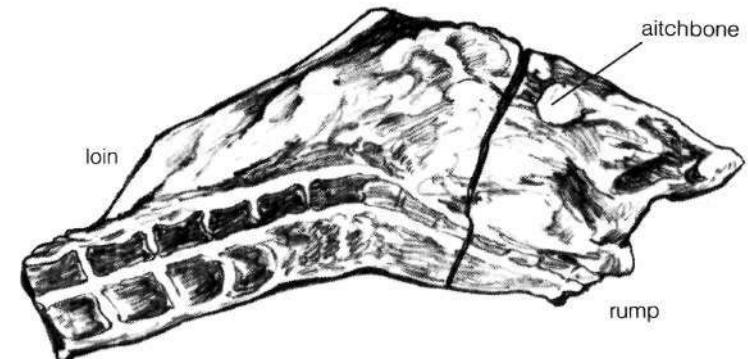


Figure 2.S: Make a cut with a knife and saw about 1 inch in front of the aitchbone. This will separate the rump from the loin.

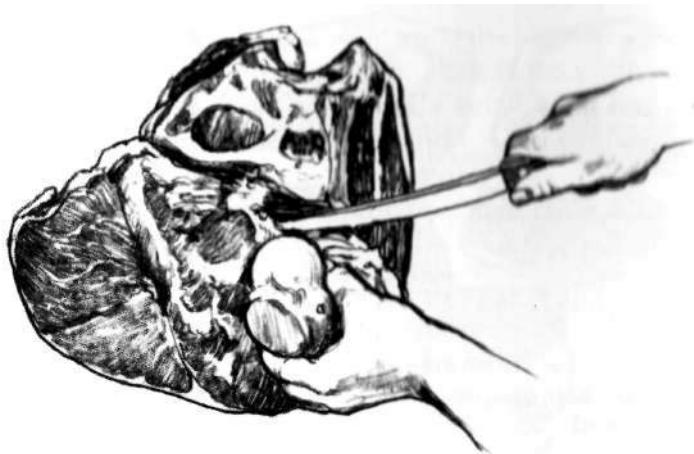


Figure 2.T: Bone and roll the rump, following the aitchbone with your knife. Remove the ball of the ball-and-socket hip joint and all bone as you come to it.

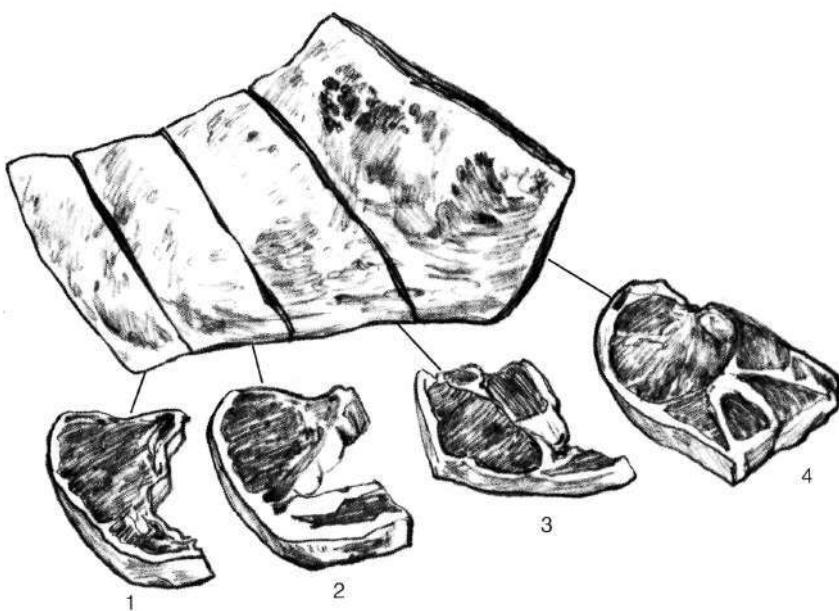


Figure 2.U: Divide the loin into Club (1), T-bone (2), Porterhouse (3), and Sirloin Steaks (4).

2.T. Bone and roll the rump, following the aitchbone with your knife. Remove the ball of the ball-and-socket hip joint and all bone as you come to it. Use metal skewers to hold the rump roast together.

2.U. The loin is divided into Club (1), T-bone (2), Porterhouse (3), and Sirloin steaks (4).

The first beef you cut will seem difficult, but as you cut you will learn. The foregoing describes one way to do the job; you will find little short cuts and different methods that better suit your skill and the way you ultimately consume the beef. Any really bad mistakes in cutting can always be made into stew or hamburger, so nothing is wasted.

Ground beef, or hamburger, should have 4 parts of lean meat to 1 part fat. Remember that when you trim for grinding. Fat does not keep well in the freezer, and it is better to throw some fat out or buy some lean lower-quality beef to grind with the fat than to try to freeze too-fat ground beef. Further, if there is any question as to the quality of a piece of meat (dirty, bloodshot, dry, or foul smelling) don't grind it, because it will spoil the entire batch.

VEAL

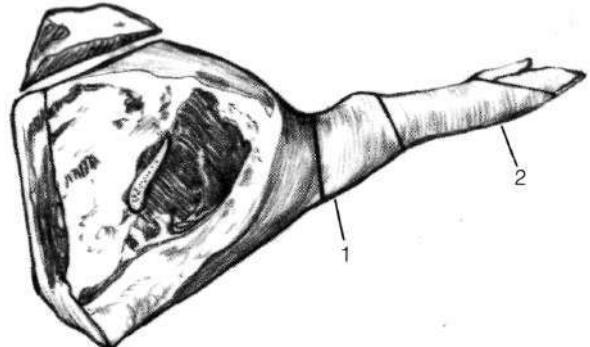


Figure 3.L: Trim the ham, and remove excess back fat, backbone, and tail. Remove the ham hock (1) and foot (2).

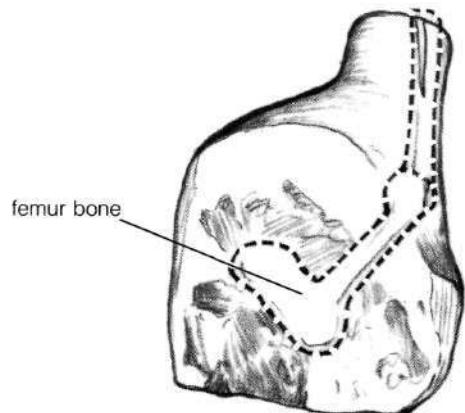


Figure 3.M: The whole ham. It may be served fresh, smoked, cut into roasts or steaks, or boned and rolled.

THE BEST VEAL is that from a calf raised on a nurse cow for about 12 weeks. Under modern farm conditions this is usually impractical and expensive, yet there are times when it is done. The next-best option is a veal calf fed only milk until it is 12 weeks old. For someone who has a family cow that is a very practical option, since when the cow is fresh she gives more milk than the family consumes. By the time you have fattened two calves, or started a beef steer or replacement heifer and fattened one calf, the cow's production has dropped. Never try to milk a cow half way and let the calf nurse the rest or vice versa. You'll end up with mastitis, a dry cow, a sick calf, or all three. On a dairy farm one can fatten a calf on excess milk such as pipeline rinsings or other unsalable milk. And there are, of course, milk replacers meant just for fattening veal, and if used properly they do produce fine veal.

In no case should you try to make veal out of just any 12-week-old calf raised as you would a dairy calf on hay, grain, and milk or milk replacer, or out of a calf much over 12 weeks of age. These animals are apt to be stringy and tough.

Bob or newborn calves sent to slaughter end up as so-called baby veal, but I have no desire to eat that (although I probably have done so unknowingly in restaurants), and would not recommend that you butcher one. Of course, if you have a calf well fattened on milk at 4 weeks of age and you lose your milk supply, it would be better to butcher it at that time rather than feed it a conventional diet of hay, grain, and

regular milk replacer, ending up with a rangy, stringy 12-week-old animal. Calves over 12 weeks old that have been nursing their mothers are sometimes used as veal. In fact, many used to come into slaughterhouses in New York City and were jokingly called "swamp veal" because they usually came from Louisiana or Mississippi. These animals, of Brahmin ancestry, could run across a slippery killing floor like a deer across a sodded field. I would guess that that veal took a lot of pounding before it was tender enough for choice Wiener schnitzel. Butchering for your own consumption gives you the choice of avoiding such poor-quality meat.

Getting Ready

To butcher veal all you'll really need is one good sharp knife and some rope. You should have string to tie the bung, and you may need an extra knife, a steel and sharpening stone, and a meat- or carpenter's saw. A clean pail and a source of water, preferably from a hose, are also a help, as are soap and paper towels. A clean container in which to put liver, heart, and sweetbreads should be within reach when you need it. For cutting up the meat later you will find the work easier with a small, narrow-bladed boning knife.

As with most animals, starving a veal calf out for 24 hours before slaughter is recommended; but to be practical, withholding the morning milk feeding on the day of slaughter is all that is usually done.

The most difficult part of butchering veal is killing the animal. After you have fed and cared for a calf for 12 weeks you will find yourself looking for excuses not to butcher it. Therefore, although a veal is easily butchered alone, it's a good idea to have assistance, so someone else can do the actual killing.

Killing and Removing the Organs

To determine the spot to shoot or stun on a calf, draw an imaginary line from each eye to the opposite horn (or where the horns would be). Just to the left or right of where the

lines would cross is the place to shoot with a .22 or hit using a small sledgehammer (figure 4.1). The most humane method of killing is the quickest. If you are unsure of stunning and don't feel comfortable using a gun, you can do a humane job of killing by simply hanging the calf by its hind legs and cutting the throat just behind the jaw, literally from ear to ear, with a sharp knife (figure 4.2). Be sure you sever both carotid arteries as well as the jugular veins. In doing so you will, of course, cut the windpipe and gullet. Death will come quickly, and the calf will bleed well when it is hung this way. If you do shoot or stun the animal, be ready to hang it immediately and cut the throat as described.

Veal is left with the hide on until it is ready to be cut up, so only remove the hide from the front legs as far back as the knee joint and remove the leg at the knee, leaving the hide on to keep the exposed surface clean. Then lower the calf, and while it lies on the ground, cut around the bung, loosen it, and tie it off with a string so it will not leak manure. Next skin the rear legs from the dewclaws back to just above the hock (gambrel) joint and remove the leg between hock and cannon bone below that joint (figure 4.3).

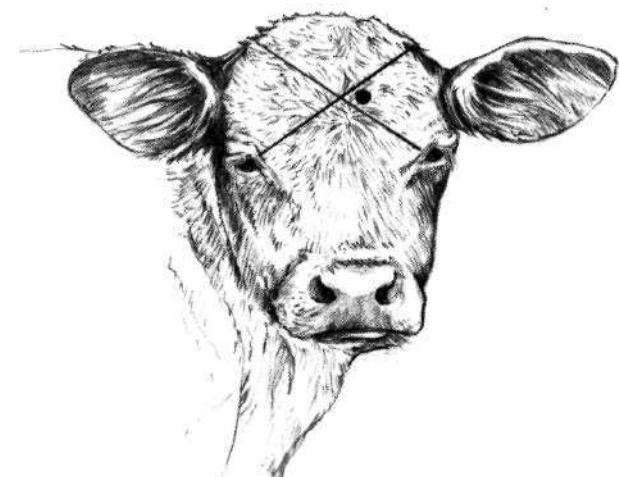


Figure 4.1: Shoot or stun the calf just to the left or right of the place where the lines shown intersect.

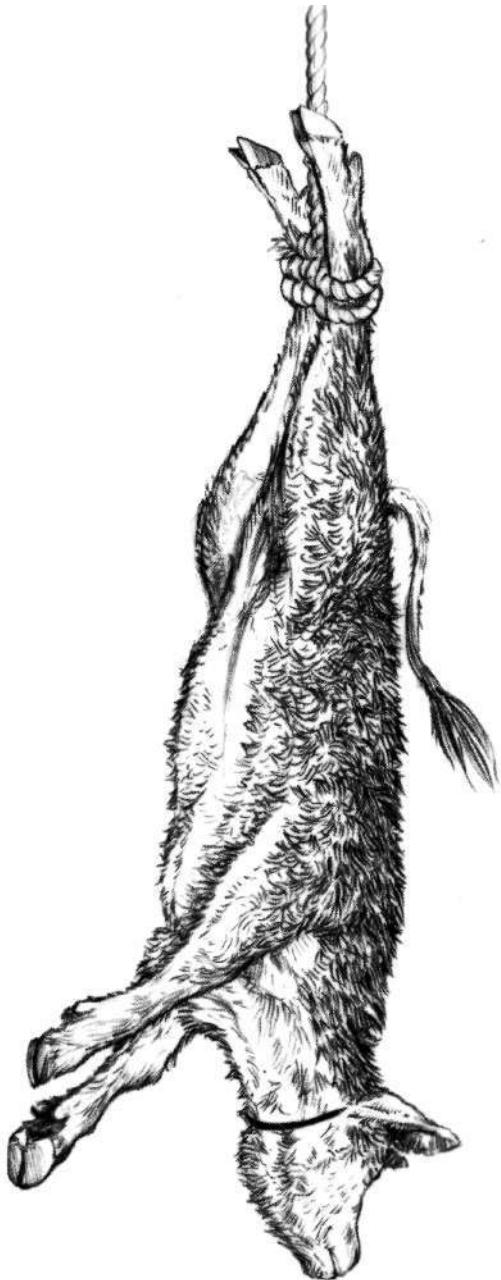


Figure 4.2: Another way to kill the calf is to hang it by its hind legs and cut the throat with a sharp knife, just behind the jaw, from ear to ear.



Figure 4.3: While the animal is on the ground, cut around the bung, loosen it, and tie it off with a string. Then skin the rear legs from the dewclaws to just above the hock joint, and remove the leg between the hock and the cannon bone. Cut off the front legs at the same place as well.

Now raise the carcass with a gambrel stick or short single-tree hooked into the gambrels (**figure 4.4**). Make a cut through the skin and, cutting from the inside out so as to avoid getting hair all over the meat, open the hide as far up as the testicles (or udder) and as far down as the cut in the throat. Next loosen the skin back 2 1/2 inches on each side of this cut. Now carefully open the belly wall on the midline just ahead of the pelvis (**figure 4.5**). Once air rushes in the insides will drop down. Then you can more easily cut from the inside out, using your fingers as a guide, splitting the belly on the midline as far down as the breastbone. The breastbone can be split on the midline with a sharp knife also, as far down or forward as it extends.

Reach into the pelvis from the front and hook a finger or fingers around the bung. Using blunt dissection and your knife, pull it down and out. (An alternative is to split the pelvis, but this exposes more meat to drying when you must remove skin over the pelvic area.) Holding the bung in your

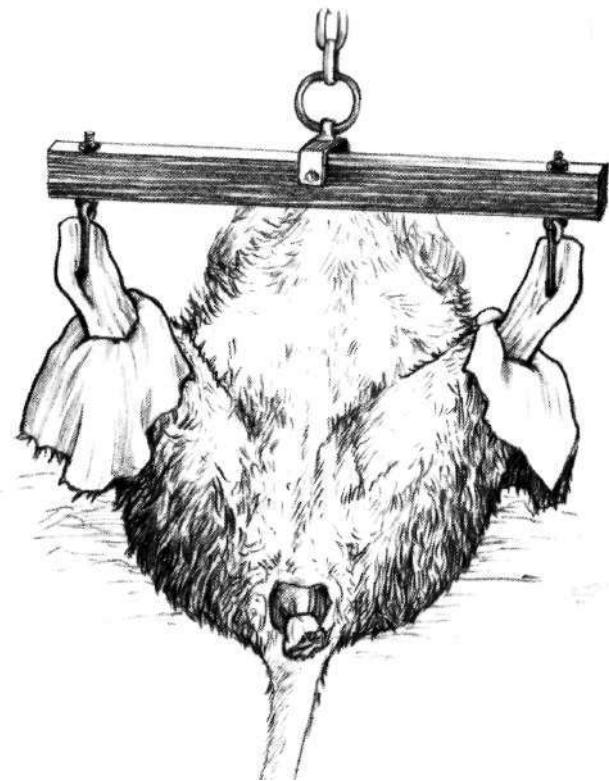


Figure 4.4: Hook the hocks of the rear legs into the gambrel space from a singletree, and then raise the carcass.

left hand (if you are right-handed) use your right hand to peel and cut the intestines loose from their attachments, pulling the whole mess out, including the stomach (but not the liver or kidneys) (**figure 4.6**). Avoid puncturing the digestive tract if possible. Either cut the whole mass loose at the gullet or, if it is not too full and heavy, let it hang while you look for and remove the belly sweetbread (the pinkish-orange pancreas) and pull out the liver. After removing the gall bladder from the liver, rinse the liver with warm water and hang it in a cool, clean place with the belly sweets.

Now cut around the diaphragm, as close to the ribs as possible, pull out the lungs and heart, dissect them loose



Figure 4.5: Open the hide with a careful cut from the testicles or udder to the throat. Loosen the skin back 2 1/2 inches on each side of the cut. Now open the belly wall on the midline just ahead of the pelvis to the breastbone.



Figure 4.6: Pull the bung down and out into the open cavity. Holding the bung in your left hand (if you are right-handed), use your right hand to peel and cut the intestines loose from their attachments, and pull everything out, including the stomach.

with your knife and, following the windpipe and gullet, cut that out as far down as where you cut the throat. Be very careful as you reach the area ahead of the heart and along the windpipe to find the true sweetbread — the thymus (**figure 4.7**). If possible leave it there until you have removed the lungs and heart. If it does come out with the lungs and heart dissect it loose to save.

Discard everything else you've pulled out except the heart. Cut through the membranes around the heart and cut it loose from the large blood vessels. Open it and take the clotted blood out. Rinse the heart and put it with the liver and belly sweetbread. Don't forget to go back and look for the sweetbread where it lies in the throat along where you pulled out the windpipe. Dissect it loose, rinse, and put with the rest of the sundries.

You have now removed everything from the carcass except the kidneys, tongue, and brain. The tongue is easily removed by opening the skin under the jaw, following the windpipe down on either side with a knife, and dissecting it out (**figure**

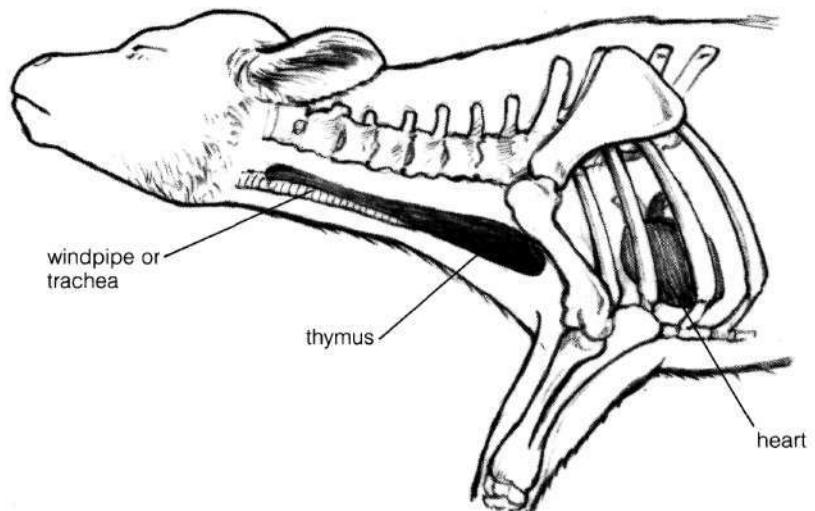


Figure 4.7: You can locate the true sweetbread (thymus) along the windpipe, and in the area ahead of the heart. Dissect it loose and save it.

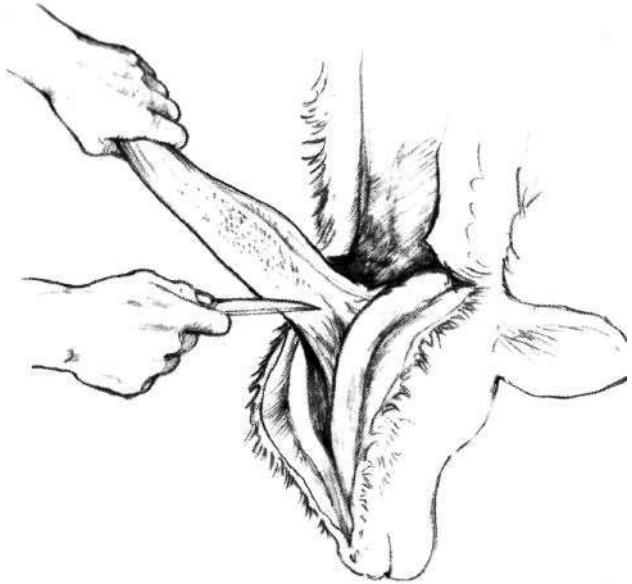


Figure 4.8: The tongue is removed by cutting open the skin under the jaw. Next follow the windpipe down, pull the tongue out, and dissect it loose.

4.8). To remove the brain you will have to split the head, pull the brain out, rinse it, and cool it as quickly as possible. The kidney on each side is usually left until the animal is cut up so the fat surrounding it will protect the tenderloin.

Butchering

Rinse the carcass inside with warm water, put two sticks in to spread it open, and hang it to cool (**figure 4.9**). The carcass cannot be easily cut up until thoroughly cooled, which takes at least overnight at 32° to 36°. Hanging a veal with the hide off will dry it too much. In recent years it has been said that it does not pay to age veal. However, if you have a cool enough place to hang it, I feel it does improve the meat to hang it for up to a week with the hide on.

If the temperature is above 40° and you don't have a place to hang your veal, by all means skin it and get it cut up as soon as possible.

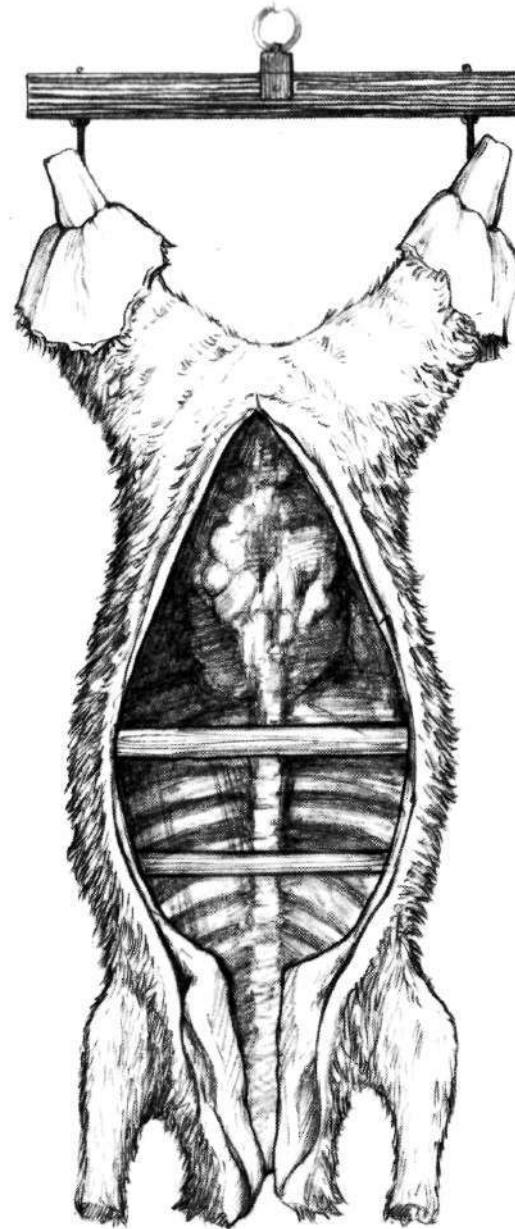
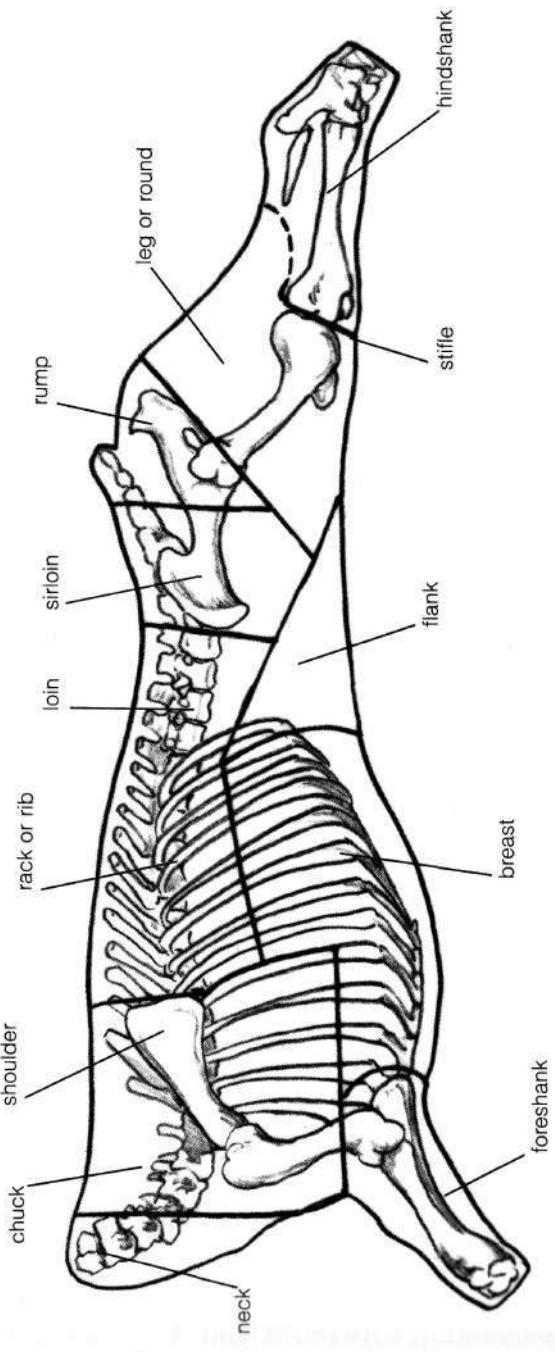


Figure 4.9: Rinse the inside of the carcass with warm water, and put two sticks inside the cavity to spread it open. Hang it and cool it overnight at a temperature between 32° and 36°. Do not skin the carcass until you are ready to butcher the meat.



You can see from the diagram the major cuts of veal. Of course, you can vary them to suit your own needs. Split the carcass down the backbone with a saw. Divide it just behind the last rib into forequarter and hindquarter.

4.A. Shown in the drawings are the cuts you will get from the forequarter: shoulder, rib, rib chops, foreshank, and breast. Remove the foreshank, bone it, and cut it into stew. Follow the cut through the ribs at the level at which you cut the shank back to behind the fifth rib. There go up with your cut until you reach the level of half a rib, and cut back to the last rib, removing the breast. The breast can be boned

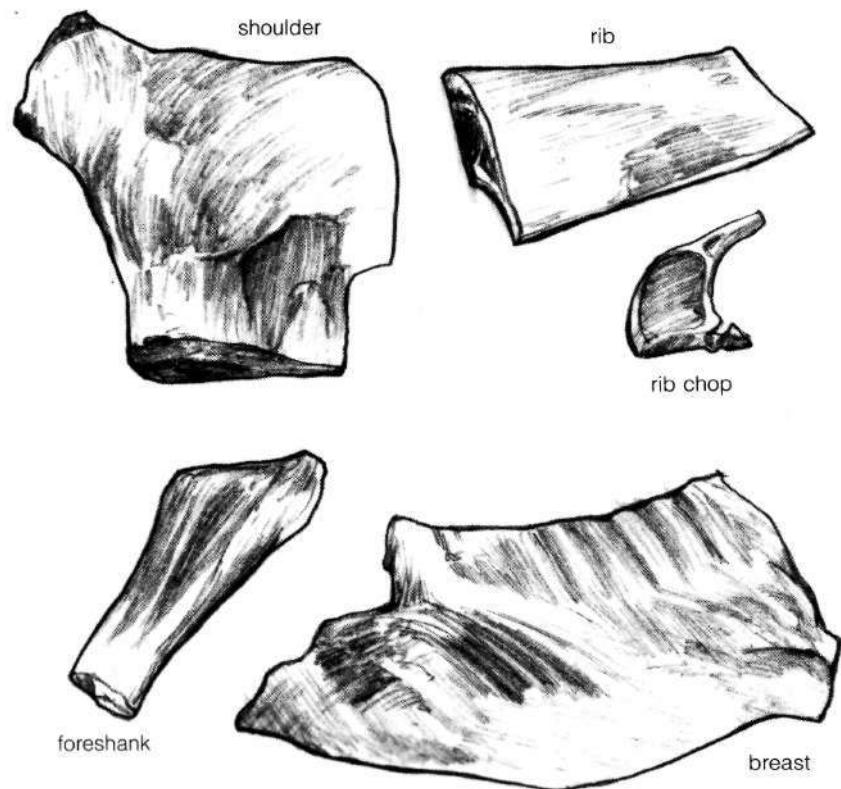


Figure 4.A: Cuts obtained from the forequarters: shoulder, rib chop, foreshank and breast.

and rolled, or stuffed, or made into stew. Remove the rack, or rib, by continuing the cut behind the fifth rib up through the backbone. The rib may be made into chops or used as a roast. Remove the neck portions of the shoulder to make into stew. The shoulder may be used as is or boned and rolled.

4.B. Cuts from the hindquarter are as shown: leg, rump, loin, cutlet, and chops. Remove the kidney from the fat in the rear quarter and save. Remove the flank at the angle shown in figure A and, if it is not too dried out, use it for stew or grinding. A cut just ahead of the hipbone will remove the loin; cut it into chops or leave whole to roast. Remove

the leg (or round) from the rump by a cut just below the aitchbone. Make cutlets from the leg until you reach the stifle, then bone that (hindshank) for stew or grinding. The rump may be boned and rolled, but it's better to cut chops from its sirloin end and make the rest into small thin scallops for scallopini veal. In fact, in good veal, much of what is said to be stewing meat, such as neck, shoulder, and shank, can be made into scallops.

Remember that veal dries out and gets freezer burn quicker than some other meats. Double wrap it for freezing.

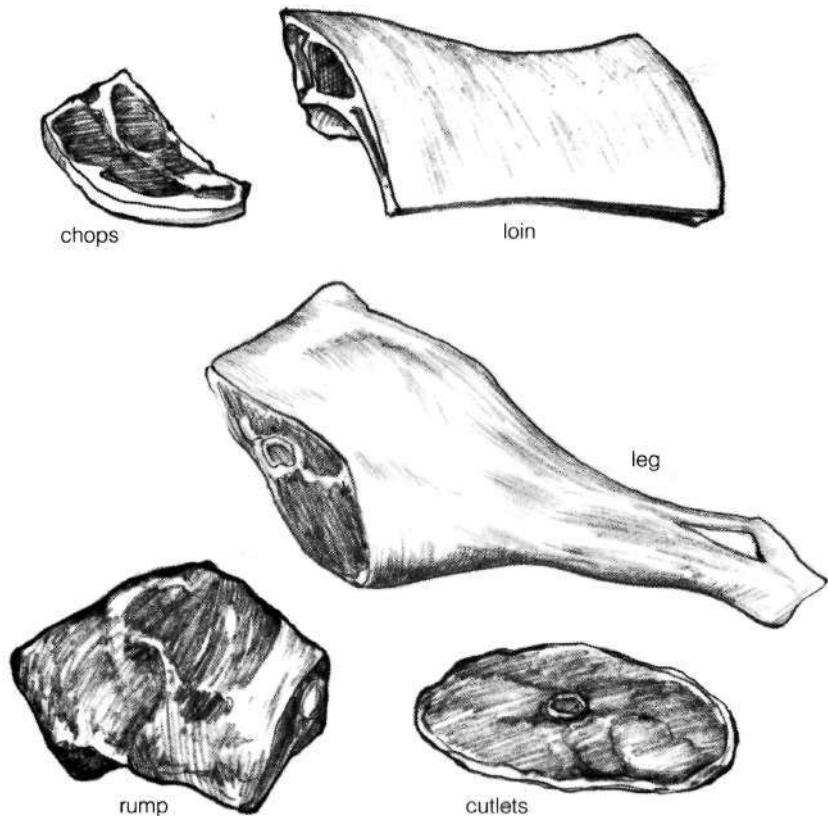


Figure 4.B: Hindquarter cuts: from the leg you obtain rump and cutlets, and from the loin you cut chops.

LAMB

THE BEST LAMB for home slaughter is true spring lamb born in March or April and butchered in November. Animals 12 to 14 months old are still lamb; up to 24 months of age they are yearling mutton; and those over 2 years old are mutton. Mutton served in the better chop houses in London certainly tastes different from the mutton of old ewes butchered on the family farm of my youth. I would guess the English mutton is not only younger but better fattened.

Baby lamb or Easter lamb, as used by people of Italian and Greek ancestry, is butchered when 1 to 3 months of age. Butchering of those lambs is often done at home by methods similar to those we are describing here. The carcasses of the lambs are often prepared whole so further cutting is not done.

Getting Ready

Lambs to be slaughtered should be kept in a clean, dry pen overnight without feed, but they should have adequate water. Don't attempt to kill lambs for a day or two after a rain when their wool is wet, heavy, and dirty. A cool day, 25° to 40° is perfect unless you have cooling facilities.

To slaughter you will need one sharp butchering knife, a small skinning knife and, of course, a steel to keep them sharp. If you are butchering only one or two lambs you can work outdoors under a tree with an overhanging limb 8 to 10 feet off the ground. The ground may be covered with straw

to keep things clean. If you are working indoors, you should have a solid beam to hang the lamb on, and preferably a concrete floor that can be swept and washed clean. You will need some light ropes to hang lambs, and you could use a small gambrel stick for each lamb. Pails and water should be handy. Cleanliness is important in all butchering, but with sheep it is imperative. You must not touch meat with hands contaminated by manure, dirt and/or wool. Contact with wool gives meat a bad flavor. To "punch" or "fist" off the hide your hands should be wet.

You will need a .22 rifle or pistol if you wish to shoot the lamb; stunning is difficult because of the shape of the animal's skull (**figure 5.1**). However, if you are going to slaughter many animals, a sawbuck rack large enough to hold a lamb placed on its back with its head hanging off on the end is a convenience that will enable you to practically guillotine the lamb, actually beheading it, thus eliminating pain almost as quickly as shooting and avoiding the danger of using firearms in situations where accidents can happen (**figure 5.2**). Of course, you can also shoot the lamb before placing it on the sawbuck, thus having the best of both systems.

To cut the throat after shooting or stunning, make sure the lamb is down and still. Stick a boning knife, blade facing the backbone, just behind the jaw and cut out. This will sever the both jugulars, both carotids, the gullet, and the windpipe. If it doesn't get the carotid arteries, go back with a second cut closer to the bone.

On the sawbuck either strap the lamb down or have someone hold it. Grab the lamb's muzzle, bend the head back just a bit and, with one clean stroke of a sharp butcher knife, cutting down toward the backbone, sever the same structures as above. Twist the head a bit and with the knife disjoint the head from the body where the backbone joins the skull. It may look crude, but the method brings sudden death and allows the heart to keep beating, pumping blood out.

Once the sheep is bled out, regardless of method of slaughter, skin out the front legs, removing the leg at the knee, or better yet at the "break" joint between the knee and ankle if the animal is still young enough to be lamb (distal end of cannon bone or metacarpus). Cut from inside out down the



Figure 5.1: Shoot or stun the lamb as close as possible to the place where the lines shown intersect.

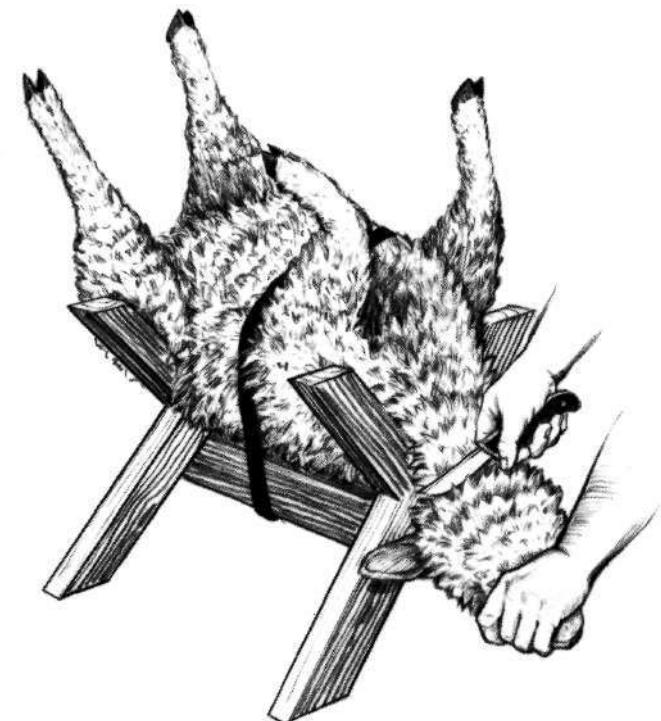


Figure 5.2: After the animal has been shot or stunned, roll the animal onto its back (on the ground or strapped onto a sawbuck), and cut the throat just behind the jaw and across from ear to ear. If you have not cut both the jugulars and the carotid arteries, go back with a second cut closer to the backbone.

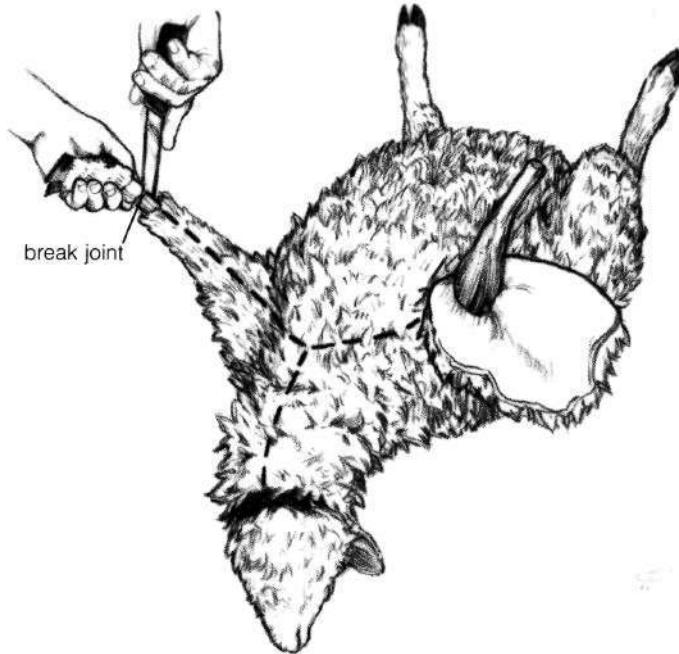


Figure 5.3: After the sheep has been bled, skin out the front legs. Remove the legs at the knee, or better yet at the "break" joint between the knee and ankle. Cut the skin from the inside out down the inside of the legs toward the front of the brisket and peel the skin back as far as the elbow. Make another cut perpendicular to the leg cut, from the brisket up the neck to the bleeding cut.

inside of the leg toward the front of the brisket and peel the skin back as far as the elbow. Now do the same on the other front leg and connect the two incisions just ahead of the brisket (**figure 5.3**).

Skinning and Removing the Organs

Cutting from the inside out, open the skin on the neck down to where you cut the throat. Using your clenched fist instead of a knife to separate the skin from the body, "punch" or "fist" the hide loose over the brisket as far back as the navel. Go to the rear legs and, starting at the dewclaws, skin each leg back to above the hock. Next, cutting from inside out, make

an incision as far as a point just ahead of the anus. Skin the rear leg down to as far as the stifle, being careful not to cut the fell (the shiny thin membrane separating the muscle from the hide). Now fist the hide off the inside of the rear legs and down toward the navel (**figure 5.4**). At this point you may remove the rear feet at the break joint, the last joint above the hoof.

Go back to the front end and fist the hide from the brisket, around the navel, and back to where you worked in from the rear. Now hang the carcass, suspended by the hind legs, using a stout cord, light rope, or gambrel stick. Open the hide from inside out along the midline, loosening the navel as you do (**figure 5.5**). Fist the hide loose over the shoulders, and back and as far up as the tail (**figure 5.6**). Using your knife, skin around the tail and anus. You should now be able to drop the hide to the neck and peel it off completely. With your knife or, in older animals, the saw, split the breastbone its full length, being careful not to cut too deep and puncture stomach or intestines.



Figure 5.4: Skin the rear legs in the same manner as the front legs, and then fist the hide off the rear legs toward the navel. You may now remove the rear feet at the break joint.



Figure 5.5: Hang the carcass by the rear legs from a rope or gambrel stick before the skinning and butchering processes begin. Open the hide from the inside out along the midline.

Cut around the bung, deep into the pelvis, and tie the rectum off so manure will not spill out (**figure 5.7**). To do this it will be necessary to pull the bung out of the pelvis, and it is easier to have a second person tie the string.

With a heavy knife or saw split the breastbone (**figure 5.8**). Being extra careful not to puncture the intestine, open the abdominal cavity just ahead of the pelvis. You will have to split the udder or cod (fatty tissue where testicles were removed) to reach this spot. As you open the cavity air will rush in and give you more room. Using your fingers as a guide, make this opening large enough to admit your hand. Again using your fingers as a guide, or holding the handle of the knife with your hand in and the blade out, carefully cut down as far as the breastbone (**figure 5.9**).

The paunch and intestines will now hang out. Be careful that the paunch does not break loose at the gullet and spill its contents. Reach up and find the bung and, using your



Figure 5.6: Fist the hide loose over the shoulders, back and as far up as the tail.



Figure 5.7: Cut deep around the bung, and tie it off with a piece of string.



Figure 5.8: Split the breastbone with a heavy knife or meat saw.



Figure 5.9: Open the abdominal cavity just ahead of the pelvis with a cut large enough to admit your hand. Take care not to puncture the intestine. Using your Angers on the inside as a guide, carefully cut down as far as the front end of the breastbone.



Figure 5.10: Reach up to find the bung, and pull it down with your left hand and hold it (if you are right-handed). With the knife in your right hand, loosen the intestines from their attachments.

fingers, loosen it and start to pull it down with your left hand (if you are right-handed) (**figure 5.10**). Use your knife to loosen the intestines from their attachments, but do not remove the kidneys. Remove the liver by cutting around behind it. Dissect the gall bladder out, rinse the liver, and hang it. When you reach the diaphragm, or skirt, cut around it and loosen the remainder of the "pluck" (lungs, heart, gullet, and windpipe) by cutting the large blood vessel on the top of the chest cavity (aorta). Follow the windpipe and gullet down to the place where you cut the throat, which should free the whole mass.

Salvage the heart by cutting it loose from its sack (pericardium). Split it open to remove the blood clot, rinse it, and hang it to cool. While you are salvaging sundries, grasp the stump of the windpipe left in the head and, cutting on either side, remove the tongue, a delicacy which may be boiled, pickled, salted, or smoked. Remove the kidneys and kidney fat, saving them for stew or to broil with chops for a mixed grill.

Butchering

Wash the inside of the carcass and the outside, too, if soiled, before moving the carcass to the chilling location. If the temperature is 28° to 40° lamb carcasses may be hung in a well-ventilated shed. Cover the carcasses with a sheet to prevent them from drying out. Do not allow carcasses to freeze. Although 24 to 48 hours at below 40° is said to be time enough before cutting and freezing a lamb carcass, I feel it is better to age lamb for about a week if the temperature is favorable. However, if you do not have a properly cool place and the weather turns warm, don't take a chance. Get it cut up.

5.A. Starting at the cod or udder, cut the flank loose as shown, going across the ribs and shoulder to just above the shoulder joint. Use the saw where there is bone.

5.B. Remove the foreshank from the breast and cut the breast into pieces (1), roll (2), and riblets (3). Remove the bone from the foreshank and use for Lamb Stew, or leave the bone in and use as Lamb Shank (4).

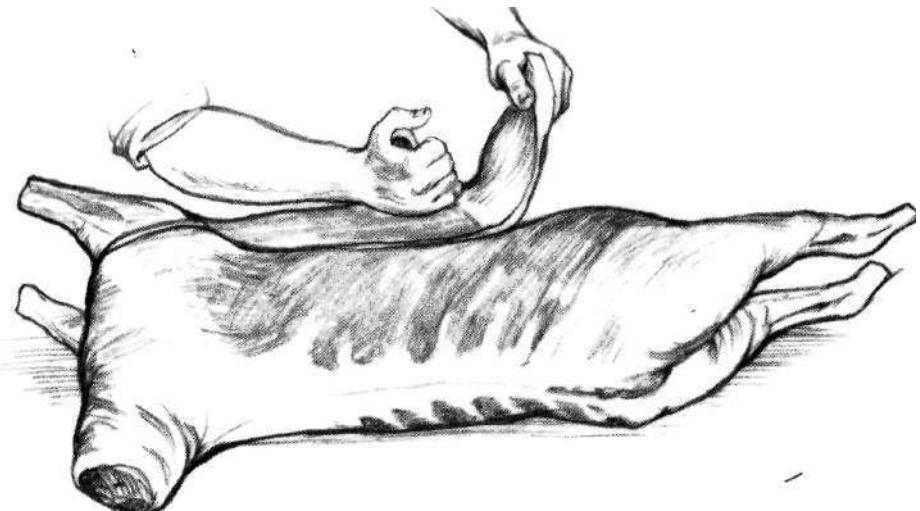
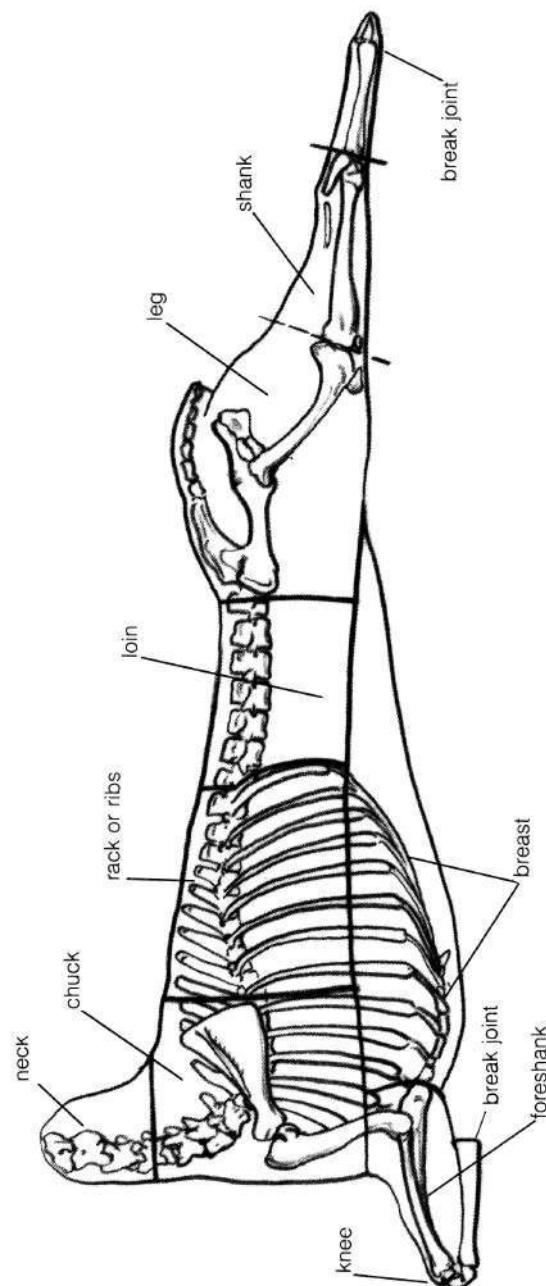


Figure 5.A: Cut the flank loose with a cut across the ribs and shoulder to just above the shoulder joint. Use a saw where you encounter bone.

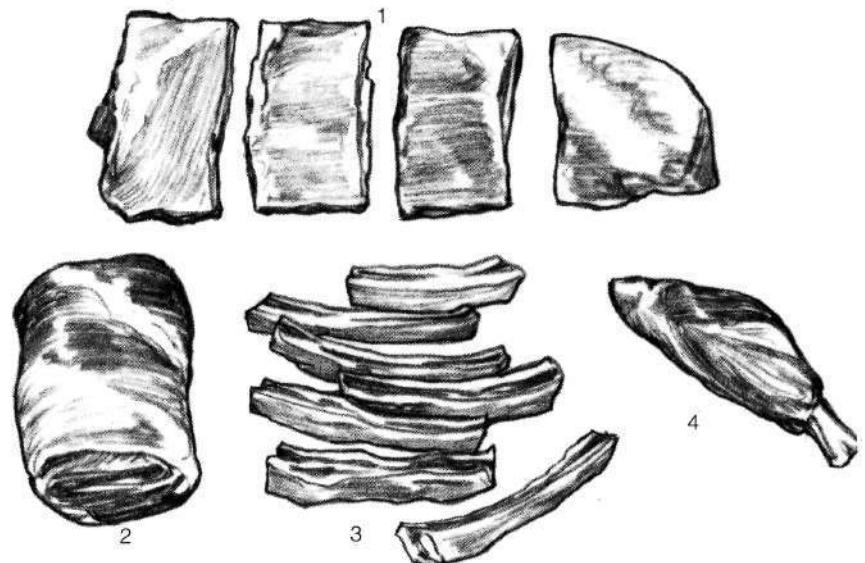


Figure 5.B: Remove the foreshank from the breast and cut the breast into pieces (1), boned and rolled (2), riblets (3), and foreshank (4).

As a boy I never thought much of sheep meat, perhaps because we only ate the old ewes and sold the good young ones. While in the army, however, I was invited to eat at a mess I was inspecting. The menu was braised Lamb Shanks, made from what was supposed to be the poorest cut of the lamb. The mess sergeant was a professional chef before the war, and he made that poor meat into a delicious feast. That experience taught me a lot and made me realize that no matter how good or poor the grade and cut of meat, the right preparation can make it a delicacy.

5.C. Cut just in front of the hipbone separating the legs (1) from the loin (2). Then cut between the last two ribs with a knife, and saw the backbone to separate the loin from the ribs or rack (3), Cutting at the level between the fifth and sixth ribs counting from the neck, separate chuck (4).

5.D. Separate the legs with knife and saw.

5.E. Prior to freezing prepare the legs for roasting by using your own judgment to make them the correct size for your family. For example, with the saw, cut three chops off the rump to make the leg smaller, or cut through the bone part way to make for easier carving. Cut the shankbone just below the stifle and either leave attached to the leg or remove and prepare as braised Lamb Shank. Legs may also be cut in two between stifle and aitchbone giving you roasts of 3 to 4 pounds.

5.F. After cutting the neck flush with the back, split the shoulder as shown. The neck may be boned for stew or ground lamb.

5.G. Use shoulder as roast (1), cut into chops (2) and (3), or bone and roll (4). To bone, follow bones with knife separating ribs first, then removing the arm (humerus), shoulder blade (scapula) and "back strap."

5.H. Split rack with saw as shown, cut into rib chops (see 5.L), bone and roll, or prepare as Rack of Lamb.

5.I. Split loin the same as you did rack and cut into loin chops (1) and the rack into rib chops (2).

As you cut the lamb up, it is best to have someone else wrap, label, and put cuts into the freezer. If you work alone

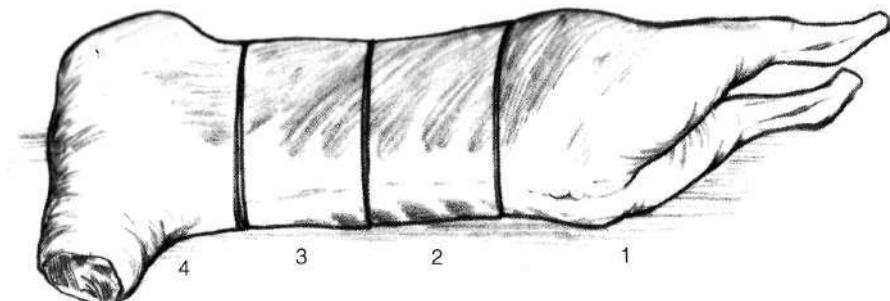


Figure 5.C: Cut just in front of the hipbone to separate the legs (1) from the loin (2). Then cut between the last two ribs and backbone with a knife and saw to separate the loin from the ribs or rack (3). Count from the neck and cut between the fifth and sixth ribs to create the chuck (4).



Figure 5.D: Separate the legs with a knife and saw.

cut up only what you can wrap and freeze as you go. When preparing stew for freezing take time to remove all fat, sinew, and bone. Do not freeze anything that is not perfect. Lamb stew can be varied to make delicious meals — for example, a curry (see recipes).

Some people grind lamb and like lamb patties as well as beef hamburgers. The taste of these, too, depends on how well you trim out all undesirable parts. Even a tiny piece of spoiled, soiled, or too-dry meat ground with good will spoil the entire batch.



Figure 5.E: To prepare a leg for roasting, you may cut chops off the rump to make the leg smaller, and also cut part way through the leg bone to make for easier carving.

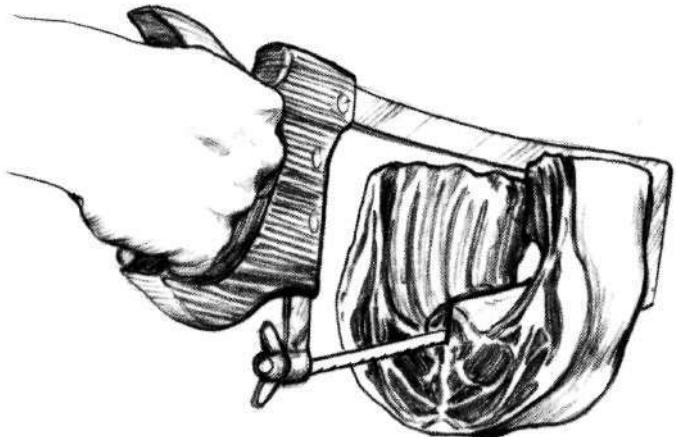


Figure 5.F: After you have cut the neck, split the shoulder with a saw as shown.

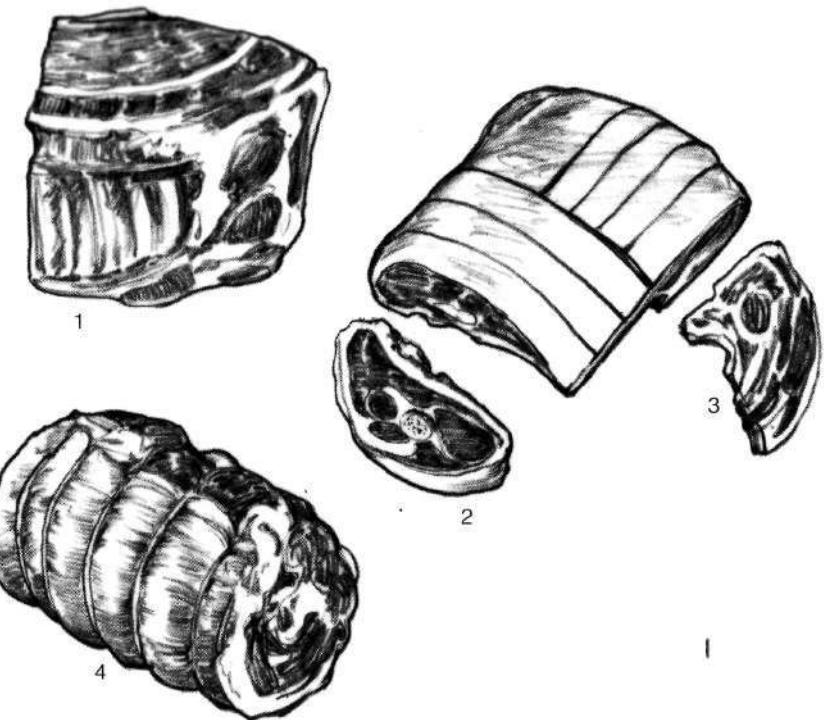


Figure 5.G: From the shoulder, you can obtain a roast (1), chops (2 and 3), or it can be boned and rolled (4).

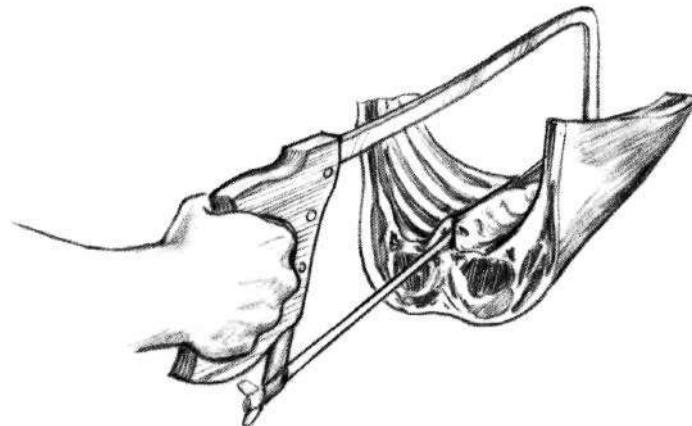


Figure 5.H: Split the rack with a saw.

VENISON

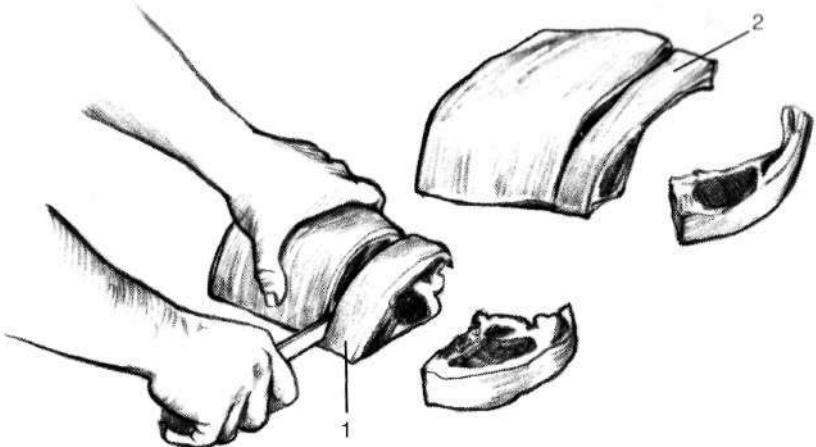


Figure 5.1: Split the loin with a saw (as you did with the rack), and then cut into loin chops (1). You can cut the rack into rib chops (2).

WHEN YOU FIGURE THE COST of growing it, the cost of harvesting it, and the amount spoiled and wasted through improper handling and butchering, venison is probably the most expensive meat produced in the country. If properly handled, however, it is some of the best meat you can eat.

In my area dairy farmers tell me they could keep 5 to 10 percent more cows if it weren't for the damage deer do to corn and alfalfa; fruit farmers also suffer severe damage to young trees from deer. Nevertheless, few want to see the deer herd reduced to pre-World War II levels. Deer were scarce then, but during the war the herd multiplied to a point where even with heavy hunting in the late 1940s and through the 1950s it grew to a level where it was eating itself out of food and shelter, and inbreeding was resulting in small, stunted animals.

During that same period two generations learned the joy of deer hunting, the pleasure of sitting quietly in the woods, and the good taste of venison. For a deer hunter the year is divided into three parts: the time before deer season, deer season, and the time after.

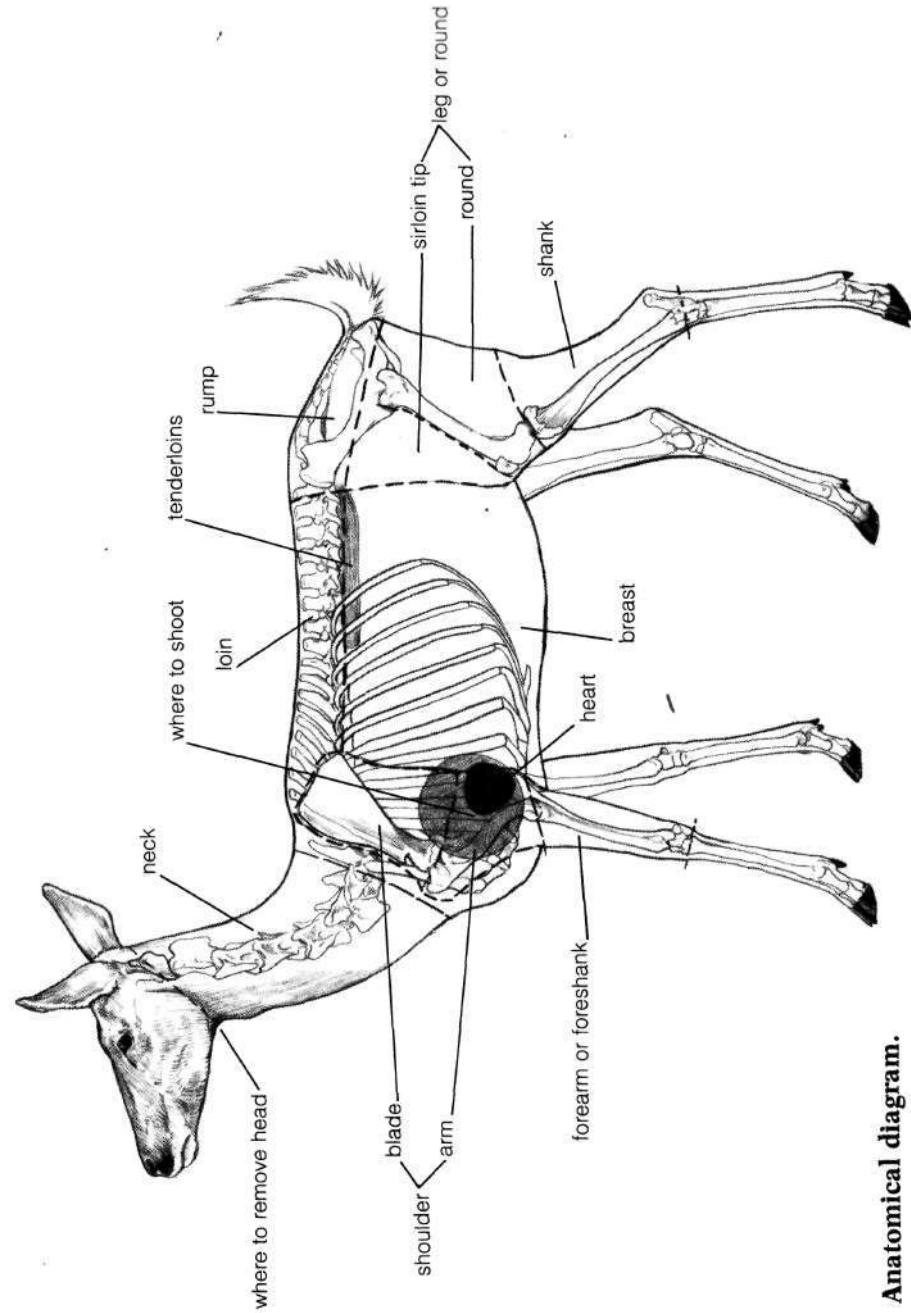
In the late 1950s our country had its first "doe day," a period late in the season when those who hadn't killed a buck could take a deer of either sex. Doe day began on a clear, cold morning, and the water pipes froze in the local auction barn, leaving a herd of cows without water. The man taking care of them hadn't gone hunting (he was seventy-six years old).

He figured the easiest way to water the cows was to turn them out to a pond in back of the barn. One heifer, heavy with calf, walked out on the ice and, when her rear feet slid under her, sat down with a crash and went through the ice, only her head remaining above water. The old man phoned my office for veterinary help and the local fire company for manpower to help pull the cow out. Since I had gotten a good buck early in the season I was working and arrived at the same time as the fire truck. In it were the only two other men in town who were around to answer the fire siren: an eighty-six-year-old and a man with a wooden leg.

At the suggestion of the older man, we laid a plank walk on the ice to get to the cow, and chopped a channel with an axe. The cow swam to shore. Had the siren signaled a fire, the four of us could have done little more than watch it burn.

Over the years not only has the enthusiasm for deer hunting changed, so has the philosophy. Some people now approve of the once-scorned "meat hunter," and instead scorn the person who hunts for sport.

Like many others, I consider deer hunting more than a sport: it is almost a way of life. I enjoy watching deer year-round and take pleasure in scouting for signs in the early fall, when I pick up moss and partridge berries and evergreens to make terrariums. When I hunt, preferably sitting quietly, high on a ridge, watching the world of small creatures as well as deer, the meat I may bring home is farthest from my mind. Yet I don't criticize the unemployed man who shoots a deer to feed his family or the overworked dairy farmer who steps out the back door of the barn after morning milking and drops a fat buck that has been feeding on his corn and alfalfa all year. But I do scorn the person, whether a trophy hunter or strictly a deer killer, who lets good meat go to waste. Meat usually goes to waste from ignorance and misinformation rather than from neglect. Most people want to salvage all the meat they can. This chapter is written for those who want to do their own butchering and get the most out of venison, both in pounds of good meat and satisfaction in a job well done.



Anatomical diagram.

Most communities have professional butchers who will cut up deer. But some years when the weather is warm they can't handle all the deer killed in time to prevent spoilage. Besides, professional cutters don't have time to bone and properly trim venison. If you have the ability to kill a deer you can learn to bone and prepare it for freezing so as to have meat that will keep for a year without spoiling or taking on a bad taste. The trick is to remove all fat and bone.

Shooting and Dressing

First, to make good venison the deer must be shot correctly. That means a chest shot, preferably through the heart or close to it so good bleeding occurs. I know this is easier said than done, particularly for shotgun hunters, but even in that case, with modern guns and ammunition a good chest shot is not too much to ask. The neck shot, or "poacher's shot," is certain, either a kill or a miss; but by the time it is safe to "stick" the deer or cut its throat, the neck-shot animal won't be able to bleed out as well as one that has received a good chest shot just behind the shoulder, where good bleeding occurs inside the chest.

Field dressing, too, is vitally important. As soon as you are sure the deer is dead, and with it lying on its side, cut deeply around the bung (anus, or the anus and vulva in the doe) with your hunting knife. Pull the bung out so you can tie it off with a string to prevent its leaking manure when you remove it later with the rest of the insides through a midline opening (figure 6.1).

Next roll the deer up on its back with the rear end downhill if you're not on a level place. Find the rear end of the breastbone (xiphoid cartilage) and make a hole through the skin just behind it. With the cutting edge of your knife up and pointing forward and down at a 45° angle, penetrate the belly wall, cutting forward and under the breastbone, being careful not to puncture the stomach (figure 6.2). Withdraw the knife, insert two fingers into the hole to admit some air and, using your fingers as a guide, cut the belly wall midline as far back as the pelvis (figure 6.3). At this time you may



Figure 6.1: With the dead animal on its side, cut deeply around the bung, pull it out, and tie it off with a string.



Figure 6.2: Roll the deer onto its back, and make a small cut just behind the rear end of the breastbone. Insert the knife at a 45° angle with the blade facing up, and cut forward under the breastbone. Be careful not to puncture the stomach.



Figure 6.3: Withdraw the knife and insert two fingers into the cut. Using your fingers as a guide, cut the belly wall along the midline as far back as the pelvis.

remove the testicles, but to comply with the game laws do not remove the sack.

Lay the deer on its side with belly downhill if feasible. The insides should roll part way out. Holding the belly wall open with one hand, use the other hand or your knife to break down the attachments of the insides along under the back (**figure 6.4**). Cut the paunch loose where the gullet goes through the skirt (diaphragm), spilling as little of the contents as possible.

Now reach up into the pelvis from the front, and follow the large intestine (colon) breaking it loose as you go until you find the bung. Pull out the whole mass, which will usually include the bladder (**figure 6.5**). Remove the liver, and set it aside on a clean rock or stump to cool until you put it in a plastic bag. Deer have no gall bladder, so don't be concerned that you have missed it.

The next step is very important. Go back around to the rear of the deer and with your knife ream the inside of the pelvis to remove all glandular tissue that failed to come out with the bung. That includes the prostate and seminal vesicles, which may give off a strong odor. Do not be concerned with the foul-smelling "brush" on the inside of the deer's hocks, or the scent glands near the dewclaws. You will spread



Figure 6.4: Now lay the deer on its side with the belly facing downhill. Hold the belly wall open with one hand, and with the other hand or a knife break down the attachments of the insides along under the back.



Figure 6.5: Reach up into the pelvis, and pull out the bung and the intestinal tract.

more odor by cutting them, contaminating your hands and knife.

If you only have a short drag to where you are going to hang your deer you may delay the next step. However, if it will be more than half an hour before you can hang the carcass, and if you have a good, stout knife, split the breastbone from the rear to the front, and from inside out (**figure 6.6**). Hide on all animals should be cut from inside out to prevent getting cut hair on the meat, but in deer and sheep this is especially important. Cut the skirt parallel to the belly wall and remove the lungs and heart (**figure 6.7**). If your knife won't cut the breastbone, cut the skirt and, reaching in with your knife, cut the lungs and heart loose. Save the heart and after it cools a bit put it in a plastic bag with the liver. Leave the kidneys in the deer. Roll the deer on its belly to a clean spot and, if there are two of you, one should take the horns (or ears), the other the tail, and "stand him up and shake him" to get all the blood out of the body cavity. If you are alone, lift one end at a time, starting with the head.

The classic drag rope goes on the horns, but one of my cattle clients showed me a better hitch years ago. He puts a rope calf halter on the deer and using a really short pull by putting a loop in the lead rope, he raises the head up, making it slide easier. Of course, if you can drive with the farm pickup or other vehicle to where the deer lies, you can wait to remove the heart and lungs until you get back to the place where you can hang the deer as you would a veal. Don't forget to put your hunting-license tag on the deer as required by law when you put the deer on the vehicle. If you have a long drive home to where you are going to hang the deer, spread the chest and belly open with sticks and carry it on the roof or tailgate of your vehicle, where it will get plenty of air.

Hanging and Skinning

Once back to where you are going to hang the deer, cut under the flexor tendon on the back of the hind leg between the dewclaws and hocks to raise the gambrel, just as you would on a hog (see **figure 3.5**). Don't hang the



Figure 6.6: Split the breastbone from the rear to the front, and from the inside out.



Figure 6.7: Cut the skirt parallel to the belly wall, and either pull out the heart and lungs, or cut them loose.

deer from the hocks as you would a beef, since that makes it more difficult to remove the skin. Put in a gambrel stick or pipe and raise your deer rear end up. Spread the body open with two sticks and remove the gullet and windpipe as far down as the deer's jaw, but if you're saving the head for mounting do not remove the gullet and windpipe until the skinning is completed. If plenty of clean water is available you may now wash the inside of the carcass. Never use water in the woods or before the deer is hung, since it won't drain out well and will cause spoilage.

In warm weather hang and skin the deer immediately and find a cooler to put the meat in for 24 to 48 hours before you cut and freeze it. In an emergency, split, skin, and quarter the deer and cut into pieces that will fit in an ordinary refrigerator. Once it's cool partially cover the skinless meat with plastic or a sheet to keep it from drying out and plan to get it cut up and frozen within 24 to 48 hours.

Skinning is easiest when the carcass is warm, but if the night-time temperature is from 26° to 40° and the day doesn't go above 50°, leave the hide on and hang the deer in a cool, airy shed or on the north side of a building out of the sun. Regardless of where you hang it, be sure it is out of reach of dogs and cats. Do not allow the carcass to freeze, particularly during the first 24 hours. If it does freeze solid, it may hang for up to three weeks frozen. Then bring it inside to thaw, and skin and cut it up immediately. Of course, if the carcass freezes and then warms up to over 50°, which it often will in November or December, skin and cut it up regardless of how long it has hung.

Carcasses that are badly shot up should be skinned immediately. Cut out damaged parts completely, even if that means destroying some good meat. The rest should be cooled below 40° and after 24 hours cut up and frozen.

To skin a deer, it must be hanging, either head up or head down depending on which is easier for you. The following description is for skinning with the head hanging down. There is really only one important thing in skinning technique, and that is to make all cuts from the inside out so as to avoid cutting hair and having it contaminate the meat.

First, cut around the cannon bone just below the hock (toward the hoof). Next, make a cut on the inside of the leg from this circular cut all the way to the place where you removed the anus. Now, still cutting from inside out, cut on the midline to where you made your initial midline cut to gut the deer.

Starting back up at the hocks, peel the hide toward the deer's groin. Be careful while doing this to avoid cutting through or handling the foul-smelling "brush" of light-colored hair on the inside of the hock. If you do handle it or get it on your knife, wash your hands and knife with warm soapy water to prevent carrying this odor to the meat.

If you are going to have the hide tanned with hair on, skin as soon as possible after killing and try to save the tail by splitting the skin of the tail all the way to the tip along the under surface of the tail. Although it is easier to cut the tail off and discard it, the white tail hair is used in fly tying to make certain types of flies, and hides with tails left on are worth a bit more to the tanner, even if hair is to be removed from the rest of the hide.

Once you've skinned out the hind legs and gone past the tail on a warm deer, you can usually pull the hide off as far down (forward) as the shoulders with little trouble by simply pulling and using your elbow as a lever (**figure 6.8**). The longer the deer was hung and the colder it is, the more difficult the job, and the more you'll have to use your knife.

To skin the forward parts of the deer, cut from inside out on a line from the midline along the back of the deer's forelegs, over its elbow and on down to the forward cannon bone. The deer's "armpit" is a difficult place to skin and is often full of blood clots from the shooting. Take your time and do a clean job, trying to save as much meat as possible but being careful not to cut your fingers or the hide. Pull the hide down the legs and cut it loose at the cannon bone.

If you are saving the head of your deer for mounting, be very careful as you skin from the shoulders down the neck toward the head. Also, don't make a midline cut beyond the forward part of the deer's breastbone, and be very careful as you peel the hide from the neck. If you are not saving the



Figure 6.8: Once you have skinned out the hind legs, you can pull the hide off the shoulders by using your elbow as a lever. Cut and pull the hide from the inside out to prevent soiling the meat — this is especially important for deer.

head, continue the midline cut, peel, cut, and peel until you reach the head; then dislocate it at the first joint where the skull joins the first neck bone. Until you've done this a few times, you may find it easier to use a saw to remove the head. To avoid getting loose hair on the meat, don't cut the hide loose from the head until the head is removed.

To skin a deer hanging head up, start with a circular cut just below the ears and reverse the above procedure. When saving a head for taxidermy, you must skin with the head down so as to save as much hide as possible for the cape. Taxidermists want all the hide from the shoulders forward to make a realistic mount.

Regardless of when you skin, rub 2 to 3 pounds of salt on the flesh side of the hide, roll it, and hang it where the dog won't get it. The hide will sell for about \$5 — not much of a price, but *at* least the hide doesn't go to waste. (Look for deer-hide buyers' ads in your local newspaper.) If you can find a place to have it tanned there is great personal satisfaction in wearing a vest or gloves from deer hide you "harvested" yourself.

The liver from a young deer is comparable to veal and can be cut in thin slices and fried or broiled (also see recipe for pate). The heart can be prepared as you would beef heart, and the kidneys should be handled like lamb kidneys. For a real gourmet treat remove the tenderloins as soon as your deer is hung. They are under the kidneys up along the backbone, and can be pulled out easily (**figure 6.9**). Cut into tiny steaks the size of a half dollar. Sear in butter and serve on buttered rolls with hot coffee — a delicious way to celebrate your successful hunt.

To freeze venison and have it keep well, bone it out and remove all fat, sinew, and nonmuscle tissue. The job is easily done with a sharp knife by anyone with enough do-it-yourself ability to kill a deer. It takes much longer than cutting with a saw as a professional butcher does, but the resulting meat is well worth the time and effort. Boneless, fat-free venison, well wrapped, will keep in a freezer literally for years, although game laws in most states require it to be used in less than a year.

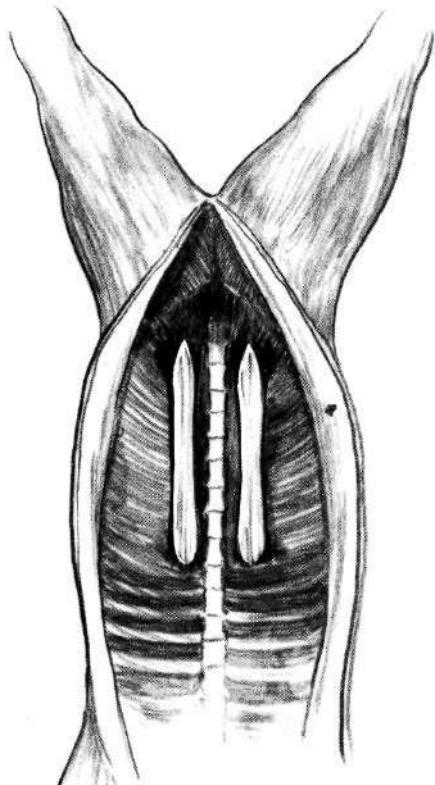


Figure 6.9: The tenderloins are a gourmet treat. You will find them under the kidneys up along the backbone. They can be pulled out easily.

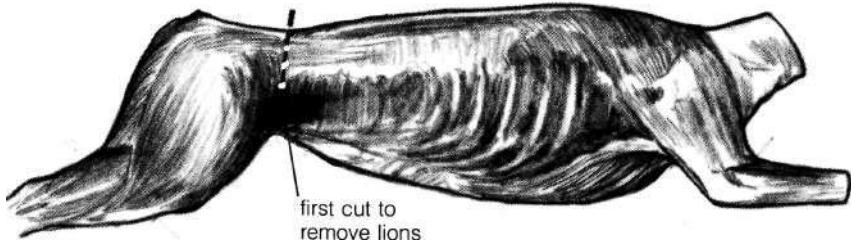


Figure 6.10: After you have completely skinned the carcass and removed the legs at hock and knee, spread the carcass out on its belly. The first cut you make will be to remove the loins. Cut just a little ahead of the hips down from the backbone on each side to the flank as shown.

If you don't wish to bone your venison see the chapter on veal and follow the butchering directions there — except you should make more cutlets (steaks) from your deer, and, as suggested in cutting veal, you should make lots of little scallopini steaks. Venison is fine processed as veal, but do not plan on storing it long with bone and fat left in. These contribute to the gamy taste many people don't like.

Butchering

when you have a skinned deer carcass with legs removed at hock and knee, place it spread-eagled on its belly on a wooden table high enough to let you work comfortably. Find the hipbone on each side, about 2 1/2 inches out from the center of the backbone. With a sharp knife make a cut at right angles to the backbone just ahead of the hips. The cut should extend from the backbone to the flank of the carcass (**figure 6.10**). Then cut as follows.

6.A. Cut as close to the backbone as possible from hip to shoulder, loosening the long loin muscles from its center attachment with your fingers. Now peel this out, cutting only on the ends and along the outside where needed. You'll now have a piece of meat about 20 inches long and 2 or 3 inches in diameter. Trim it of fat and sinew, cut in slices 3/4-inch thick, wrap, and label boneless loin chops. Do the same on the other side.

6.B. Remove a shoulder starting at the brisket, cutting up under the "armpit" and staying as close to the ribs as possible until you reach the top of the withers, freeing the whole shoulder.

6.C. Cut across the shoulder at the level of the shoulder joint and sever the joint. You could save this piece as a roast with the bone in, but for proper storage dissect the shoulder blade out, starting at the joint and working toward the top. You can trim, roll, and tie it as a Boneless Blade Roast, or separate the muscle bundles on either side of the "spine" of the shoulder blade. Slice them as boneless shoulder chops or thin little scallops.

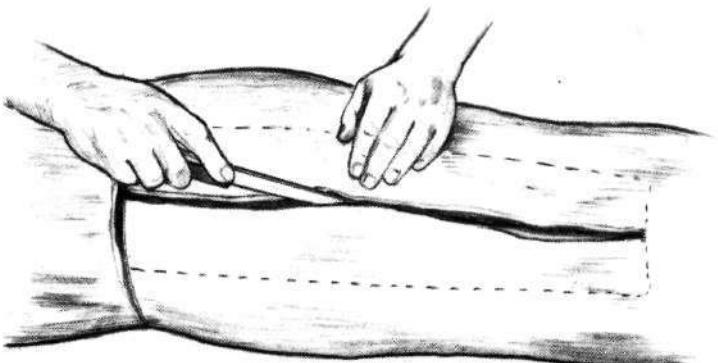


Figure 6.A: Cut as close to the backbone as possible from the hip to the shoulder. Loosen the loin muscles with your fingers. Cut as shown to obtain two pieces of meat that are each approximately 20 inches long and 2 or 3 inches wide.



Figure 6.B: Remove the shoulders by cutting from the brisket to the armpit. Stay as close to the ribs as possible until you reach the top of the withers. At this point the whole shoulder should come free.



Figure 6.C: Cut across the shoulder at the shoulder joint and sever it.

6.D. Cut at the elbow joint to separate the arm and shank. You may saw here, using a carpenter's saw if you don't have a meat saw. If you have neither, separate the joint with your knife. Trim the armbone (humerus) out and roll the meat for a roast or cut for Swiss steak, stew, or chopped meat. The shank may easily be boned and the meat used for stew or grinding. Don't overlook the possibility of slicing some for scallops.

6.E. Taking your time and using your ingenuity, bone out the neck and roll it for a roast. The neck makes excellent sauerbraten. You can also saw it off and cut it up for stew or use it for grinding.

6.F. If you have a saw, cut the backbone off just ahead of the hipbone where you made the first cut to remove the loin, and split the legs at the midline as shown. Or you may turn the carcass on its back and, spreading the legs, cut down until you find the large ball-and-socket joint and remove the legs. Even if you split the pelvis with a saw, remove the legs at this joint.

The meat left on the pelvis is the rump. With a sharp knife, by following the pelvic bone, you may peel away a small piece of tender dark meat usually covered with a heavy layer



Figure 6.D: Cut the elbow joint to separate the arm and the shank.



Figure 6.E: Cut off the neck with a saw, and then bone it out to obtain roast meat.

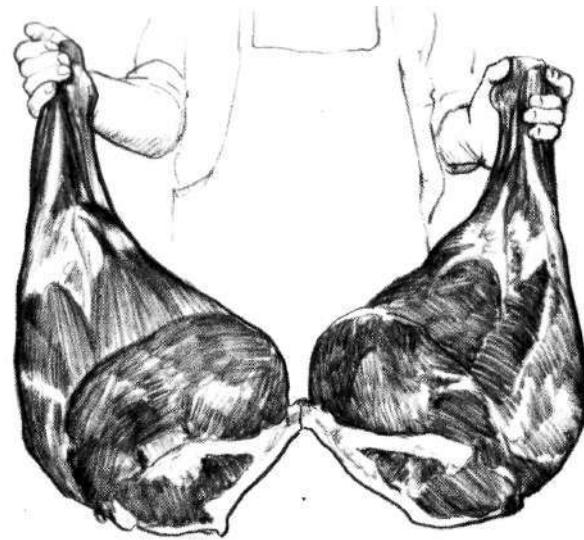


Figure 6.F: Saw off the backbone at the place where you made the first loin cut. Split the legs at the midline as shown.

of fat. Remove the fat and roll the meat as a roast or cut it into thin steaks or scallops. Trimmings go for stew or grinding.

The best meat you have left now is the ham, consisting of sirloin tip, round, and shank. Here you may wish to refer to the chapter on veal and make large round steaks (called cutlets in veal) as shown there. The legbone and extra fat should be removed before freezing.

6.G. Remove the sirloin tip as shown by starting at the stifle and cutting along the long bone (femur).

6.H. Trim the sirloin tip into one football-shaped piece that makes good steak, Swiss steak, or scallops, and use the trimmings for stew or grinding meat.

6.I. Separate the femur from the meaty part of the round, leaving the meat below the stifle on the shankbone (tibia). Trim the meat off the shankbone and use for stew or grinding.

6.J. Follow the natural separations in the round, and you will come up with two large pieces of muscle. These may be used as roasts, but are usually cut as round steaks. If you don't separate the muscles you may slice larger steaks.

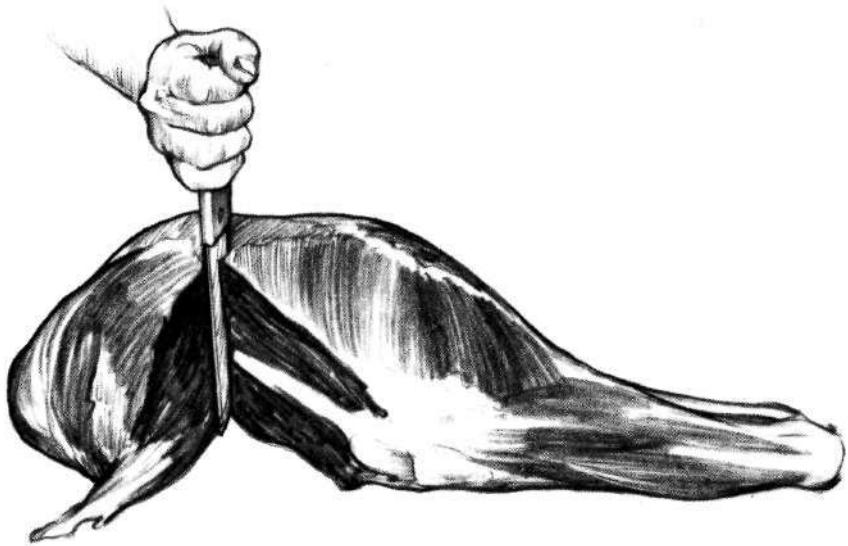


Figure 6.G: Remove the sirloin tip by cutting from the stifle along the long bone or femur.

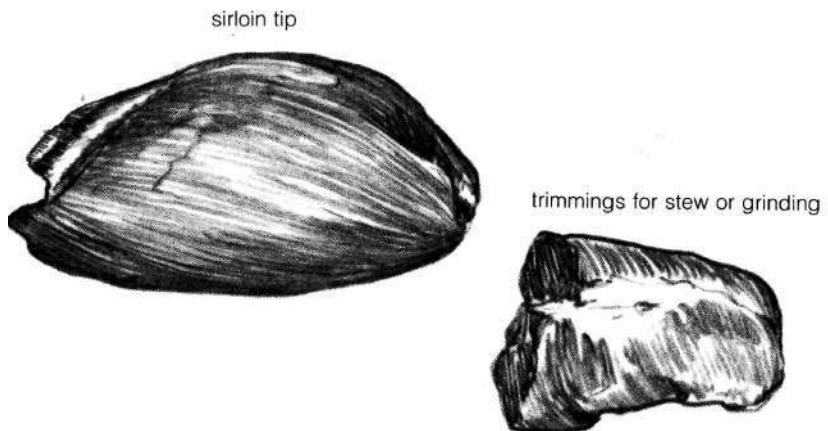


Figure 6.H: Trim the sirloin tip into one football-shaped piece of meat and use the trimmings for stew or grinding meat.

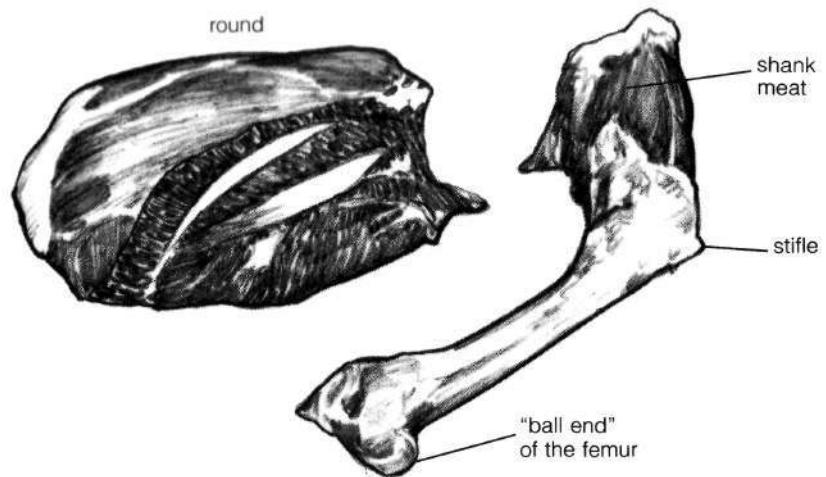


Figure 6.I: Separate the femur from the meaty part of the round, but leave the meat below the stifle on the shankbone (tibia). Trim the meat off the shankbone and use for stew or grinding.

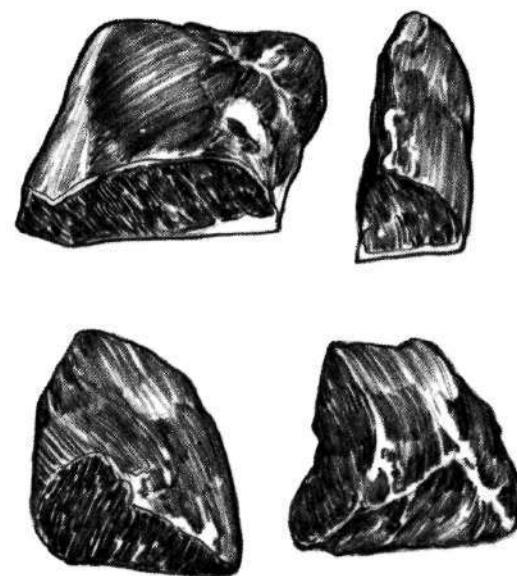


Figure 6.J: Follow the natural separations of the round, and you will obtain two large pieces of muscle. This muscle may be further trimmed into four roasts as shown, but are usually cut as round steaks.