Cutting Meat

by G. H. Wellington

AN EXTENSION PUBLICATION OF THE NEW YORK STATE COLLEGE OF AGRICULTURE AND LIFE SCIENCES,
A STATUTORY COLLEGE OF THE STATE UNIVERSITY, AT CORNELL UNIVERSITY, ITHACA, NEW YORK

Cutting Meat by G. H. Wellington

Contents

Meat is one of the most important items in the diet, being both palatable and nutritious. Most meals are built around meat which lends interest to the other foods in the diet.

Many New York farmers produce and slaughter a sizable portion of their meat supply. They can provide meat for their own use at actual cost of production and can be assured of a more adequate and satisfying diet throughout the year. More farmers can, and no doubt should, provide a larger amount of their home meat supply. The labor involved in slaughtering, chilling, cutting, and processing, and the occasional losses in preservation may have discouraged some.

This publication is written for the farmer, the homemaker, and others concerned with the production, processing, and consumption of meat. It shows, step by step, acceptable methods for cutting beaf, veal, lamb, and pork.

A revision of Cornell Extension Bul. 1053. 1975, reprinted 1979.

The author is professor emeritus in the Department of Animal Science, New York State College of Agriculture and Life Sciences, Cornell University, Ithaca.

Appreciation is expressed to James E. Hilderbrant for assistance with the manuscript.

GENERAL CONDITIONS

Sanitation

Meat is highly perishable. Therefore, proper sanitation is absolutely essential at all times, and every effort must be made to prevent contamination from the time the animal is killed, through processing, to the time the meat is eaten. Cleanliness and the constant use of sanitary facilities will help to accomplish this.

The keeping quality of meat is enhanced by clean handling and by prompt, efficient cooling. Select only healthy animals for slaughter. Diseased animals may bleed poorly at slaughter, and the wholesomeness of the meat will be questionable.

Keep the premises free of insects and rodents; make provisions for the disposal of waste products, unused trimmings, bones, and the like; prevent off odors; and keep all tools and equipment clean. Cleanliness on the part of the food handler must not be overlooked.

Slaughtering

Livestock can be slaughtered by custom slaughterers, by professional butchers at the farm, or by the experienced or inexperienced farmer. The trend for livestock slaughter on the farm has been constantly decreasing.

Chilling

Quickly and thoroughly chill all carcasses as soon as possible after slaughter to insure keeping quality and to enable easier, more attractive cutting. A 24-hour chill at 32° to 40° F. will cool the pork or lamb carcass. However, beef of average weight will require as much as 40 hours or more to bring the inside temperature of the thicker parts down to a more safe 40° F. Should the weather turn warm after farm slaughter, move the meat to refrigerated rooms for chilling. Employ practices that hasten carcass chilling, such as cutting up heavy carcasses or cutting away some of the fat in the crotch or emptying the body cavity of poultry and fish. Chilling lowers the carcass temperature and thereby discourages undesirable microbiological changes. Without chilling, meat will spoil because the harmful organisms are more active at the higher temperatures. Hang the carcass to chill in a place free of undesirable odors and with good air circulation.

Do not chill a carcass by packing it in ice or snow, or exposing it to freezing temperatures. If a carcass does

freeze, thaw it out at 34° to 38° F. temperatures. Improper chilling practices result in reduced quality for curing, canning, and freezing.

On the farm, select a cool afternoon for slaughtering so that the carcass can cool during the night and not be subjected to the heat of the day.

Aging

Aging is the holding of meat after slaughter in cold storage at a temperature of from 32° to 38° F., largely to increase tenderness and, in certain kinds of meat, to develop flavor. Aging is best done in a cooler where the temperatures can be closely controlled. On the farm, aging can be accomplished in a place that is cold and well ventilated. In general, less aging should be attempted under farm conditions than is practical with good refrigeration.

Do not age pork, veal, poultry, and fish. Cut and process them as soon as possible after thorough chilling. Any attempt to age these meats can result in loss of palatability.

Lamb can be aged at proper temperatures for from 1 to 3 days after chilling; but in general, lamb is not improved much by aging. Well-finished mutton can be improved by aging from 5 to 7 days.

Age beef for varying lengths of time, depending upon fatness and whether it is to be frozen and stored at 0° F. Beef carcasses with little or no external fat may develop mold and slime rather than improve if held for more than about 5 days after slaughter. Well-finished beef (good to choice grades) will be more tender if aged from 5 to 10 days. Prolonged aging periods usually are accompanied by the need for extensive surface trimming to remove molds, other surface growth, or excessively dried and dark meat.

Cutting

No standard method of cutting meat is practiced universally. The method used depends upon local demands and upon the individual performing the operation. The method used should satisfy the needs of those persons who will eventually eat the product.

The recommendations in this bulletin, although practical and desirable under many conditions, may have to be altered to meet individual requirements. The methods described give a maximum of steaks and (or) chops and roasts.

In cutting meat, make neat, compact, and smoothly trimmed cuts. Such cuts assure easy wrapping, efficient storage, and attractive servings.

Tools and Equipment

The tools and equipment for cutting need not be elaborate or expensive. From the standpoint of practical efficiency, certain items are essential and others are definitely desirable. Most of the tools required to cut meat carcasses are shown in figure 1.

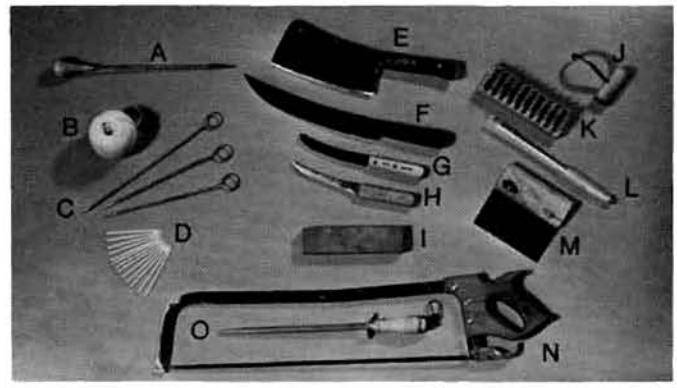


Figure 1. Cutting tools. *A*, needle; *B*, string; *C*, metal skewers; *D*, wooden skewers; *E*, cleaver; *F*, steak knife; *G*, butcher knife; *H*, boning knife; *I*, sharpening stone; *J*, hook; *K*, block brush; *L*, hydrometer; *M*, block scraper; *N*, saw; *O*, steel.

Two types of knives are essential for cutting meat—a narrow-bladed boning knife, having a 5- or 6-inch blade, and a 12- to 14-inch steak or butcher knife. These knives must be kept sharp.

To sharpen a knife, use a grindstone, whetstone, or carborundum stone first (fig. 2). Keep an even bevel with the knife edge. Be sure the blade makes a 15- to 20-degree angle with the stone. Make the motion such that the stone will wear down uniformly. Then use an oil or water stone to give a smooth, keen edge. Touch up this edge with a 12- to 14-inch steel (fig. 3).

The use of the cleaver should be kept at a minimum to prevent bone splinters in the meat. A 24- to 28-inch meat saw is an important piece of equipment. If you have no meat saw, use a clean, sharp hand saw. In many instances the use of the saw will completely replace the need for a cleaver. A meat needle is helpful in stringing hams and rolling roasts; metal skewers are also useful.

Keep all tools and equipment clean and in good condition.

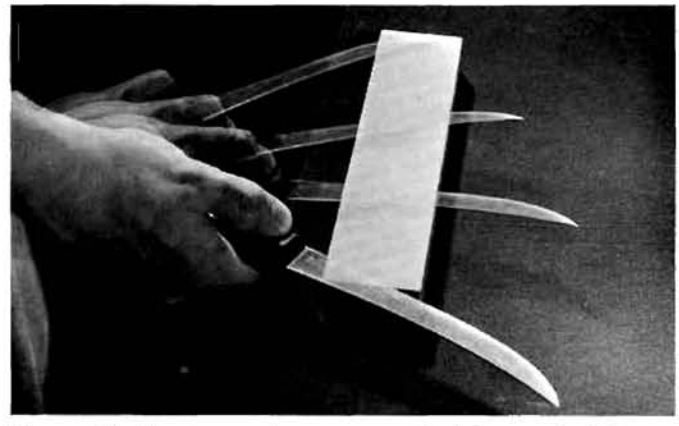


Figure 2. In sharpening, use a grindstone, whetstone, or carborundum stone. Keep an even bevel on the knife blade. The blade should make a 15- to 20-degree angle with the stone. Take long strokes and wear the stone down uniformly.

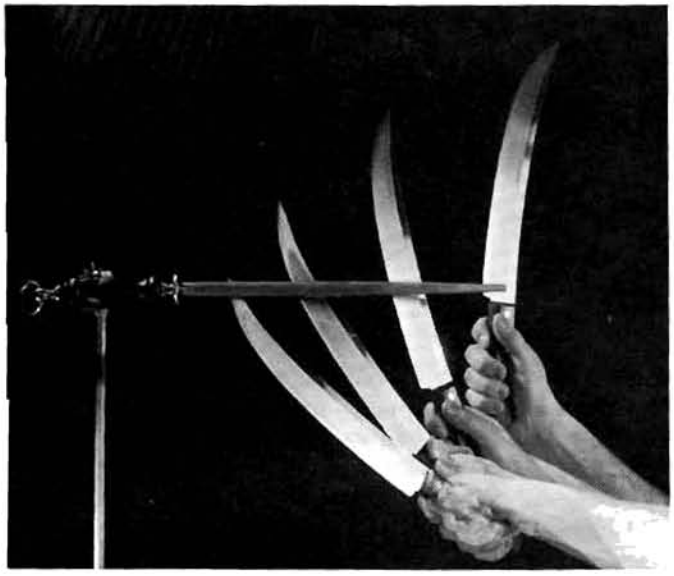


Figure 3. Use a steel to touch up an already sharpened knife. With the blade making a 15- to 20-degree angle with the steel, start with the heel of the blade at the top of the steel and move the blade down on the steel so that the point of the blade leaves the steel at its base.

Boning, Rolling, and Tying

To conserve storage space, bone, as much as is practical, any meat that is to be frozen or canned. Boned cuts make attractive servings and are easy to carve. Ways to bone the various cuts are mentioned in the sections dealing with the different kinds of meat. It is good practice to retain small bones to give normal shape to the cut. The larger bones can be used for soup stock which can be canned or frozen.

In rolling and tying a cut of meat, roll it so that when it is carved, the slices will be made across the grain of the meat. The ties should be tight to exclude pockets where juices can collect and spoilage start. First tie the ends. Be certain that the ends are even. Sometimes roasts are larded (fat is distributed where it is needed). A needle and string is often used to tie roasts, especially where difficulty is encountered in getting the ends even and trim. Use a strong string and space the ties evenly, about one inch apart.

The steps in tying are illustrated in figures 4 to 18.

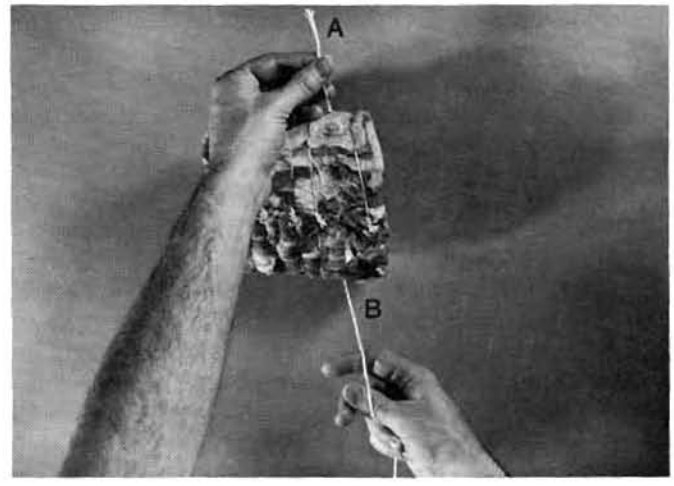


Figure 4. Place the string under the roast, with the free end (*A*) away and the source end (*B*) toward you.

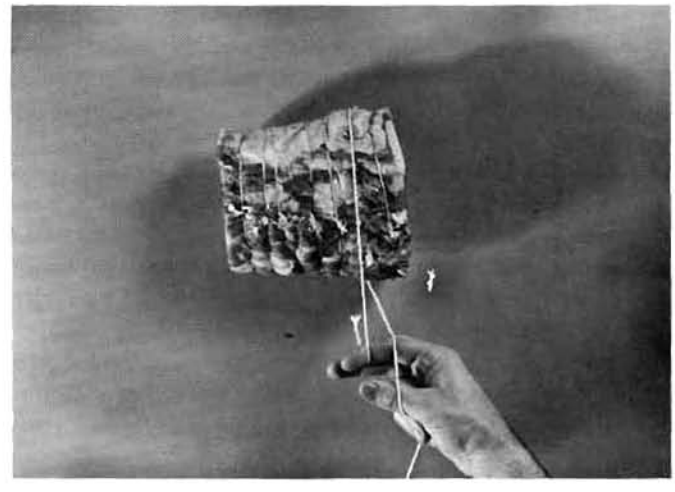


Figure 5. Holding the source end in the right hand, with the fingers under it, grasp the free end with the index and second fingers.

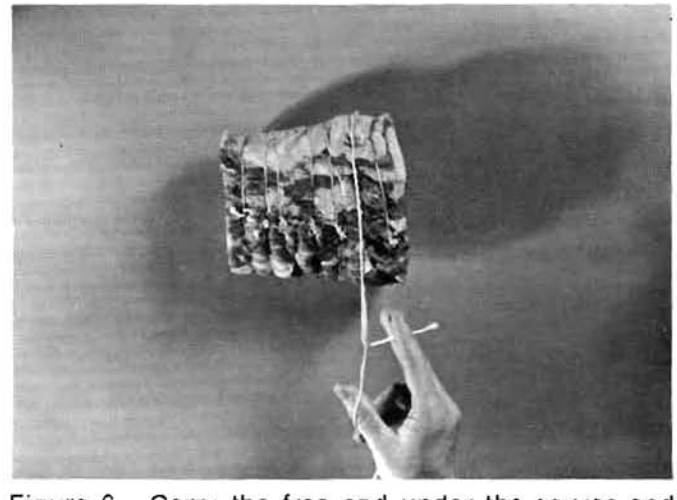


Figure 6. Carry the free end under the source end with the fingers.

Figure 7. Place the index and second fingers of the left hand, palm side up, over the roast and under the top string.

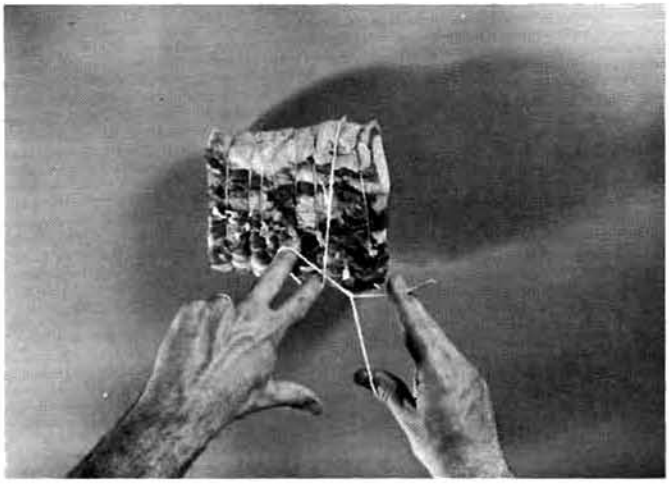


Figure 8. Rotate the left hand clockwise, turning the palm down, to form a loop.

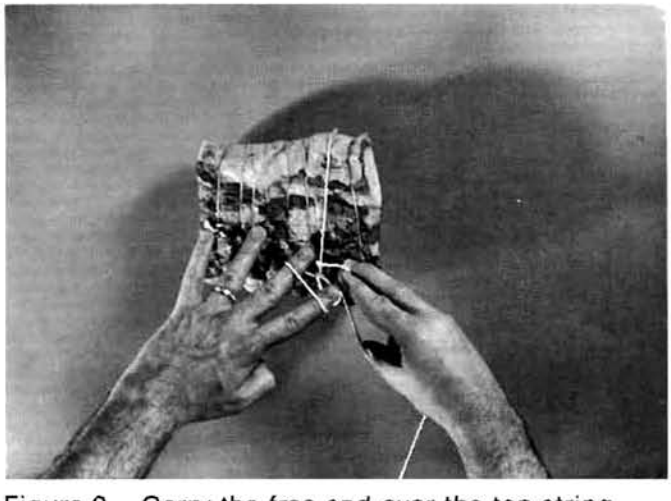


Figure 9. Carry the free end over the top string.

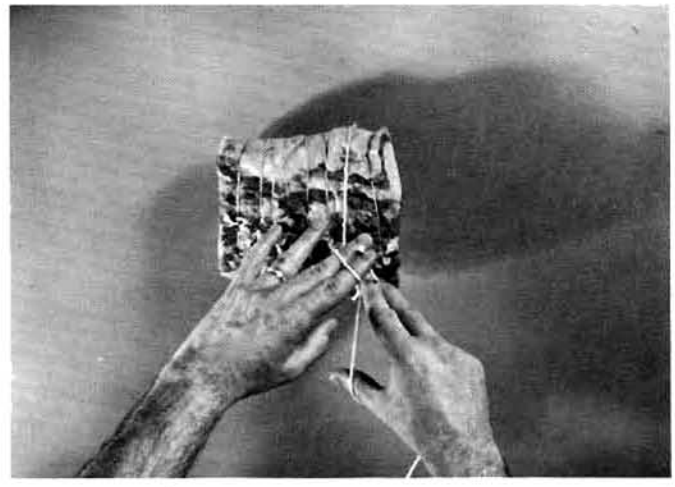


Figure 10. Grasp the free end between the index and second fingers of the left hand.

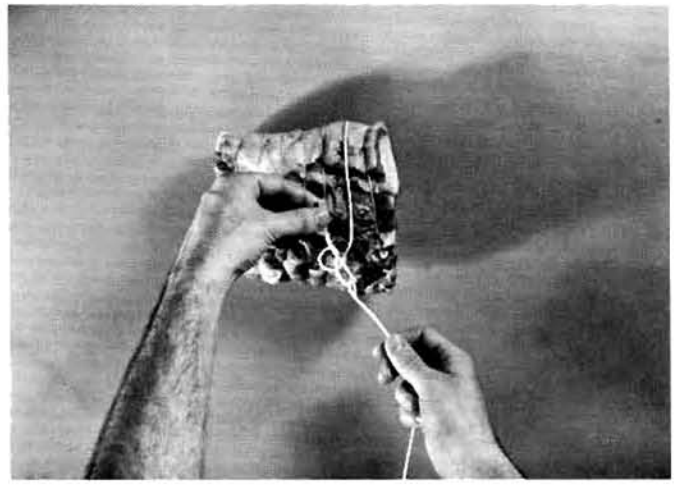


Figure 11. Pull the free end through the loop.

Figure 12. Tighten the knot.

Figure 13. Release the free end. Hold the roast with the left hand. Tighten the string by moving it backward and forward with the source end in the right hand until the knot does not slip and the tie is tight.

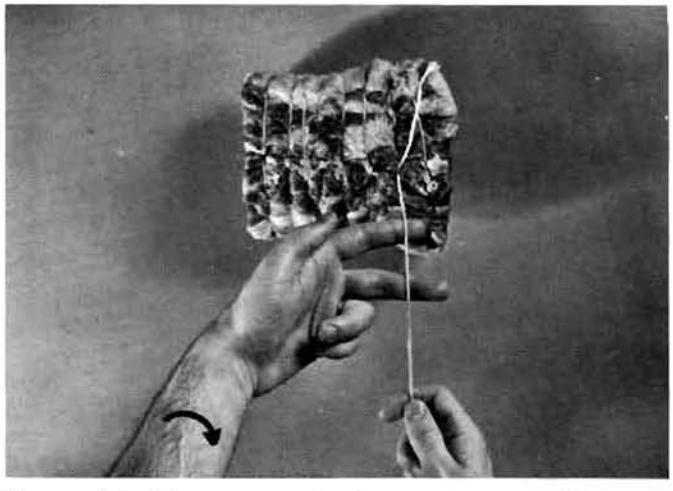


Figure 14. To secure the knot, repeat making the loop. Place the index and second fingers of the left hand, palm side up, under the source end of the string.

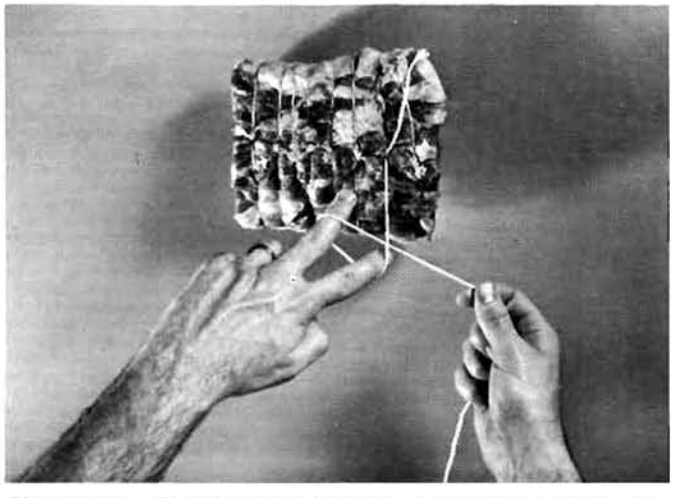


Figure 15. Rotate the left hand clockwise, turning the palm side down, to form a loop.

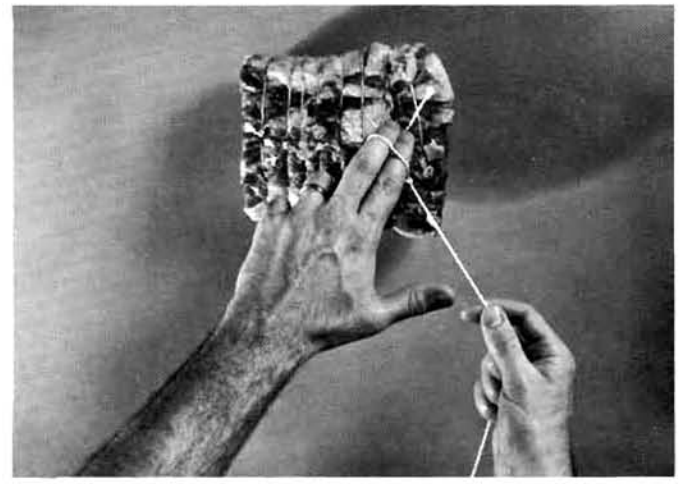


Figure 16. Grasp the free end over the top string, between the index and second fingers of the left hand.

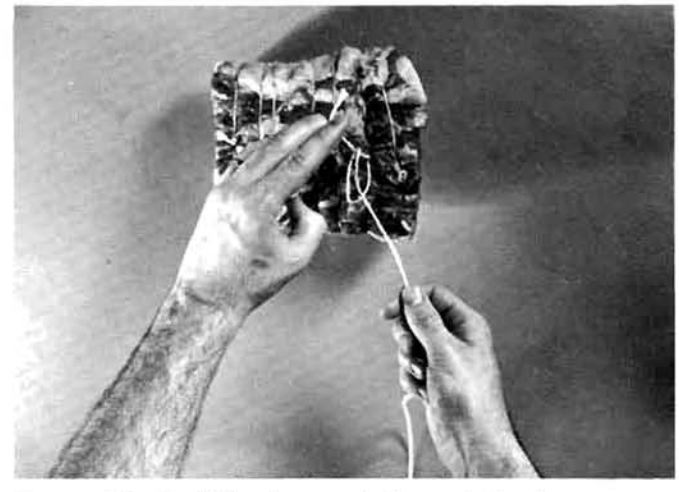


Figure 17. Pull the free end through the loop.

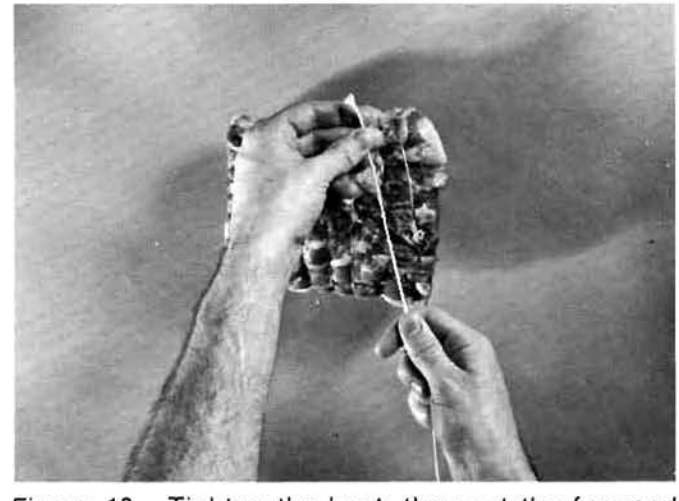


Figure 18. Tighten the knot, then cut the free and source ends about one-quarter inch above the knot.

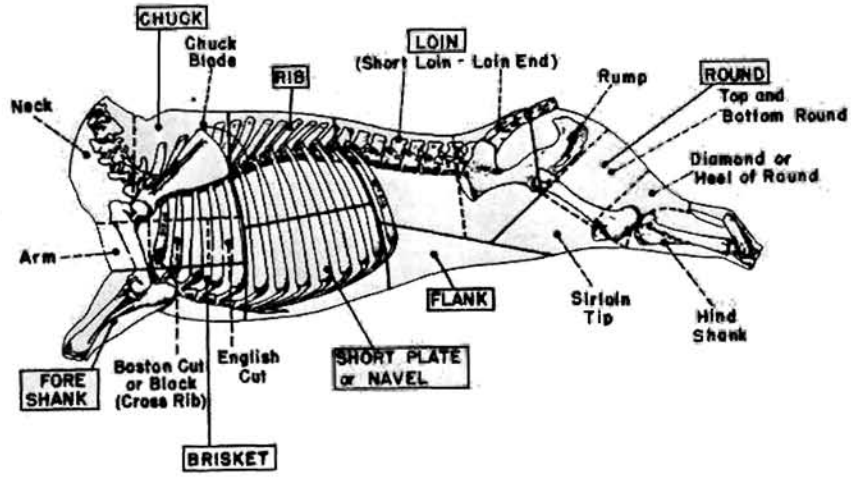


Figure 19. Diagram showing the wholesale (marked in boxes) and retail cuts from a beef carcass.

Usually a side of beef is first quartered or ribbed down, that is, divided into the forequarter and hindquarter. Cut between the last 2 ribs (ribs 12 and 13, counting from the front of the carcass). Leave about 6 inches of flank intact to hold up the forequarter while the backbone is sawed. Then saw through the backbone and separate the forequarter from the hindquarter.

The cuts from a side of beef, handled as described, are represented diagrammatically in figure 19. These diagrams show both the wholesale or primal cuts (bracketed and in larger type) and the breakdown cuts within each wholesale cut (in smaller type). How to cut a beef carcass is shown in figures 20 to 51.

Ground Beef

Ground beef, sometimes called hamburg, consists of fresh beef, ground twice, in about the proportion of 4 parts of lean to 1 part of fat. It is seldom stuffed in casings, but it may be seasoned. Use the less tender cuts of beef and the various clean lean trimmings. A larger proportion of lower quality beef carcasses are boned and ground.

Figure 20. Place the forequarter on the cutting table with the inside up. Divide it between the fifth and sixth ribs, counting from the neck. Insert the knife at this position to mark the cut.

Figure 21. Turn the forequarter over, with the flesh or outside up; insert the knife in the marked position; and continue the cut between the fifth and sixth ribs. Saw through breastbone, shoulder blade, and backbone.

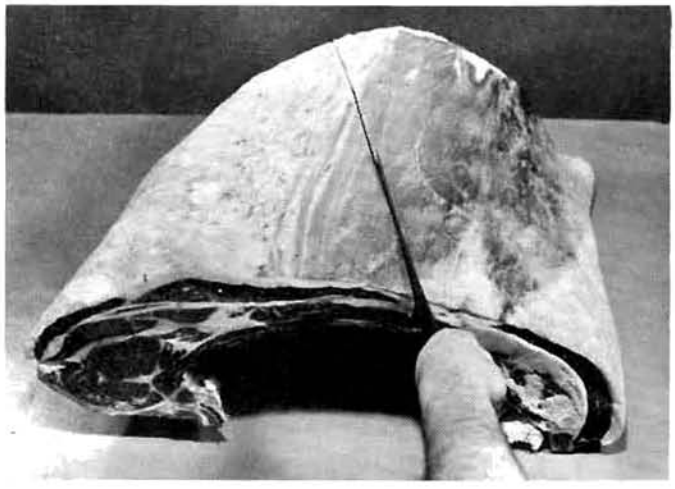


Figure 22. Separate the plate from the rib by sawing across the ribs from 7 to 10 inches from the chine bones on each end. The chine bone is the ventral, cut edge of the backbone. If the rib is rolled, cut it long; if it is to be cut into steaks and (or) standing rib roasts, cut it short.

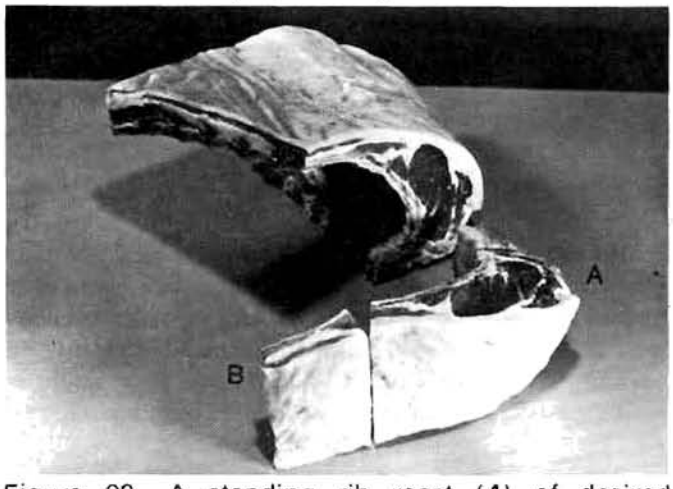


Figure 23. A standing rib roast (*A*) of desired thickness can be cut from the rib. If the rib cut was long, the end (*B*) should be removed and used as shortribs. Steaks for broiling can be cut from the small end of the rib.

Figure 24. In boning the rib, cut closely against the rib bones, leaving as little meat on the bones as possible.

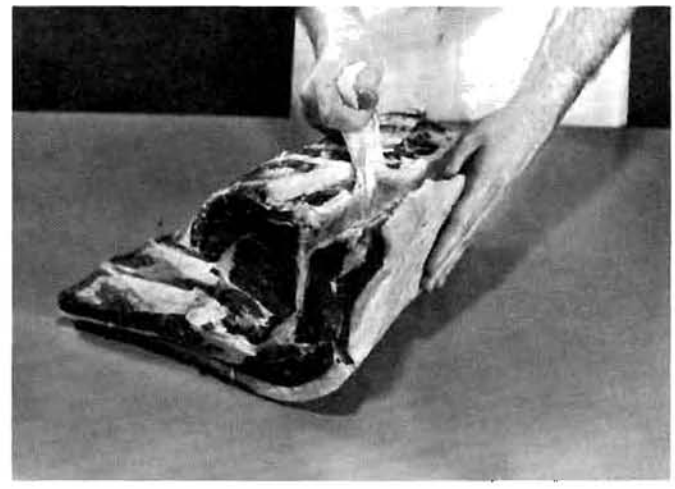


Figure 25. Loosen and pull out the back strap or yellow ligament. Also remove the cartilagenous end of the shoulder blade.

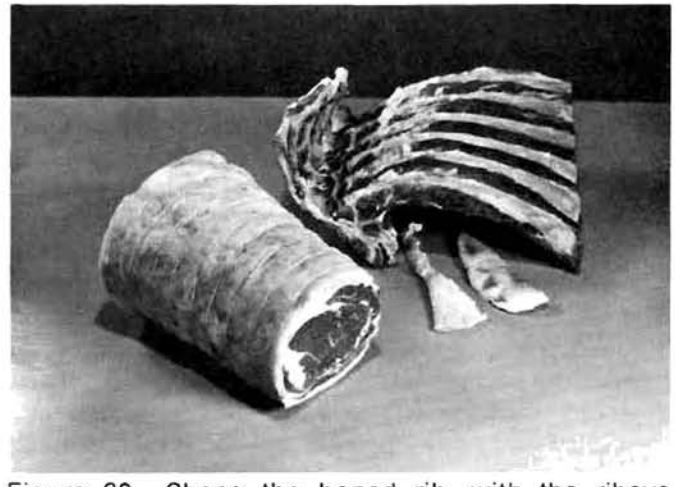


Figure 26. Shape the boned rib, with the ribeye muscle as a face or end, and tie the roast. This can then be cut into roasts of suitable size to meet the needs of the family. The boned rib can also be cut into boneless steaks.

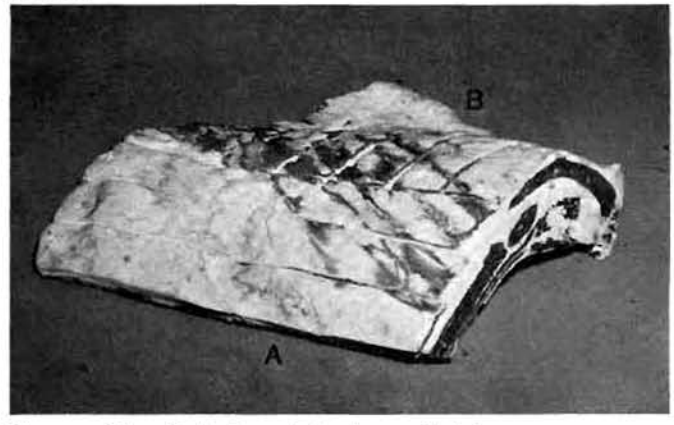


Figure 27. Cut the plate (navel) into one or more strips of shortribs (*A*), about 2 inches wide. Bone the remaining plate for stew or ground beef or use it for soup stock (*B*).

Figure 28. Cut off the shank and brisket, just above the joint of the elbow bone (*A*). Make this cut parallel to the back. Then separate the shank from the brisket by cutting along the natural division between the muscles. Cut the shank into pieces, each about 2 inches thick, for soup stock or remove the meat from the shank for grinding or for stew.

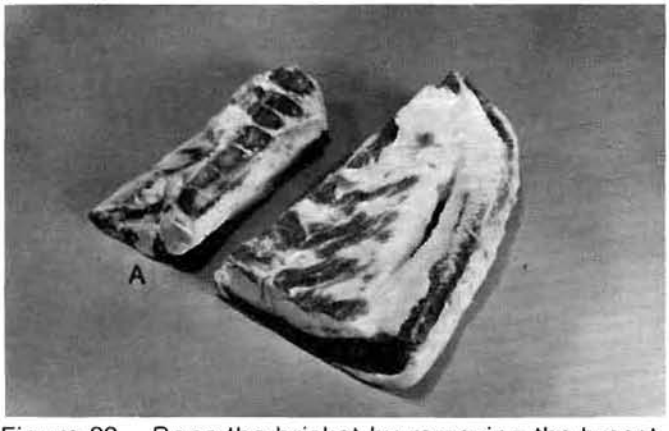


Figure 29. Bone the brisket by removing the breastbone and ribs (*A*). Boneless brisket can be used as a pot roast or can be corned.

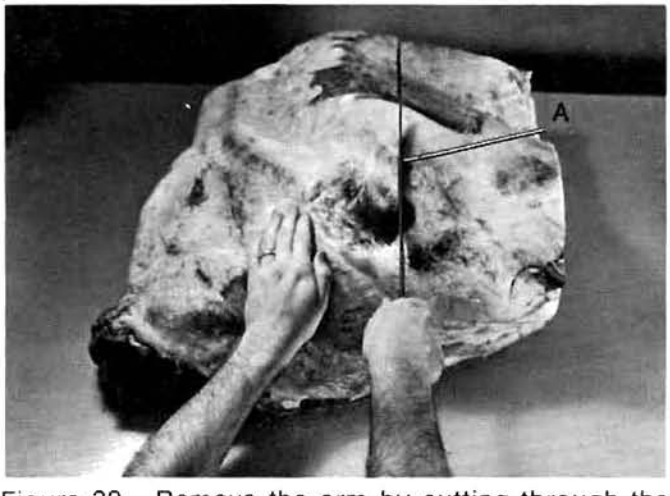


Figure 30. Remove the arm by cutting through the lower side of the point of the shoulder (*A*), parallel to the back and to the cut made in removing the shank and brisket.

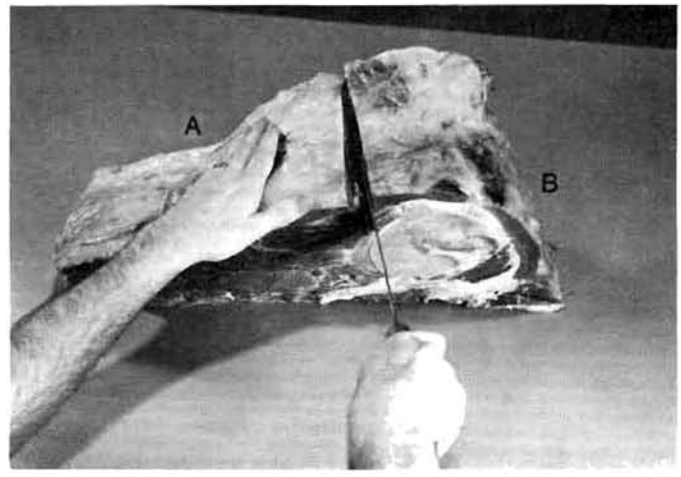


Figure 31. Separate the block and English cut (*A*) from the cross arm (*B*) by cutting just behind the arm bone, about parallel to it.

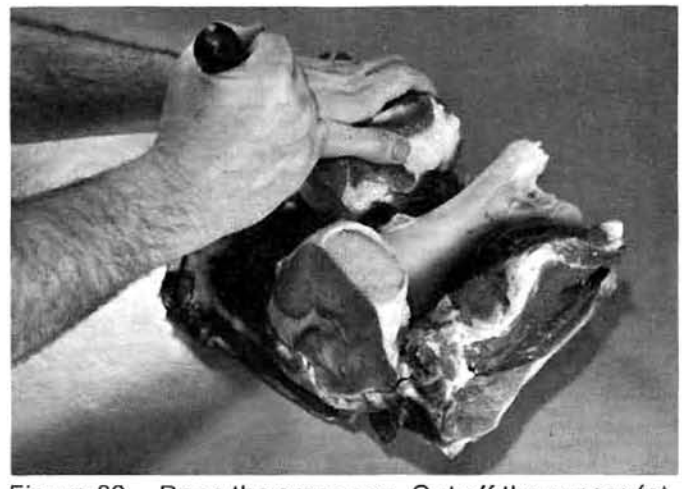


Figure 32. Bone the cross arm. Cut off the excess fat. Then roll and tie this moist-heat-cooked roast.

Figure 33. Cut to separate the block (*A*) from the English cut (*B*). Retain 2 ribs on the English cut.

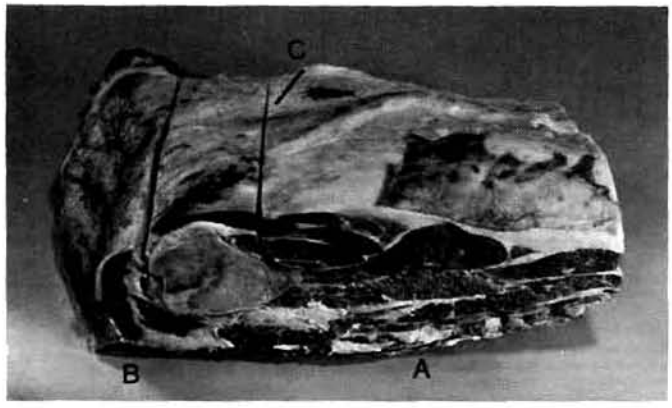


Figure 34. Separate the chuck blade (*A*) from the shoulder and neck (*B*) by making a cut across the rear of the shoulder joint (*C*) and parallel to the rib end face. Use the neck and shoulder as a pot roast, for stew, or for ground beef.

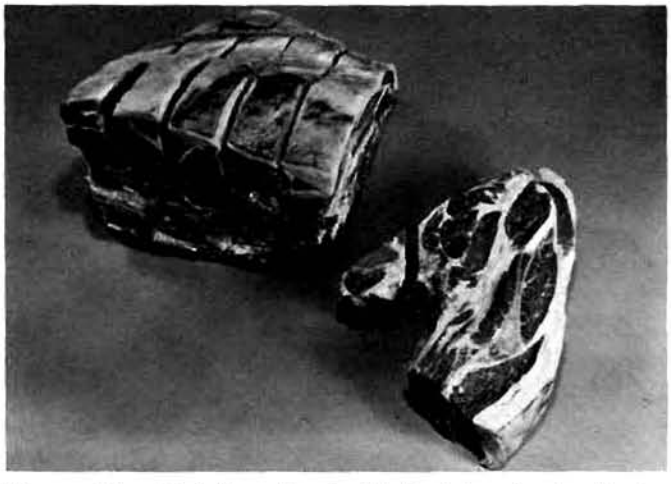


Figure 35. Cut the chuck blade into steaks (to be cooked with moist heat) and (or) roasts. Otherwise separate the inside from the outside chuck by cutting immediately below and along the shoulder blade bone. Remove the shoulder blade from the outside (top) chuck, then remove the ribs and backbone from the inside (bottom) chuck. Roll and tie both of these roasts.

Figure 36. Lay the hindquarter on the cutting table, inside up. Remove the kidney and kidney fat (suet). Leave a thin layer of fat on the tenderloin muscle, the lean muscle just below the backbone. Cut into the kidney fat, cut the membrane surrounding the kidney, and remove the kidney. Trim the arteries, veins, and fat out of the kidney.

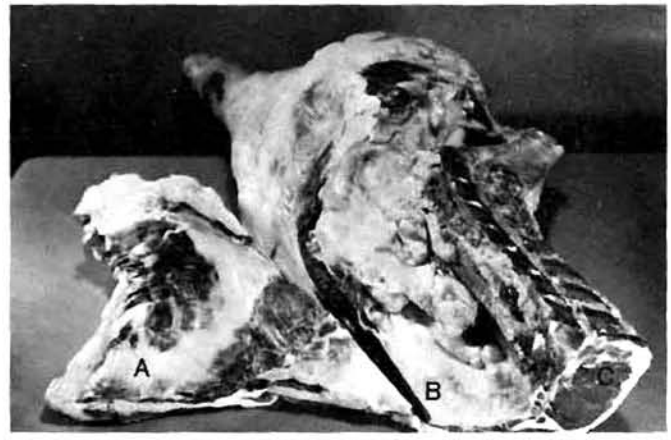


Figure 37. Remove the flank (*A*) starting at the top of the round and following the natural curve of the leg down forward. Continue the cut to a point (*B*) about 7 inches from the chine bone or the width of the eye muscle from the eye muscle (*C*). The position of this cut will be determined by the length of the tail portion desired on the steaks.

Figure 38. Remove the flank steak or oval-shaped muscle (*A*) from the cut. This cut requires moist heat for cooking. Use the remaining lean for stew or grind it.

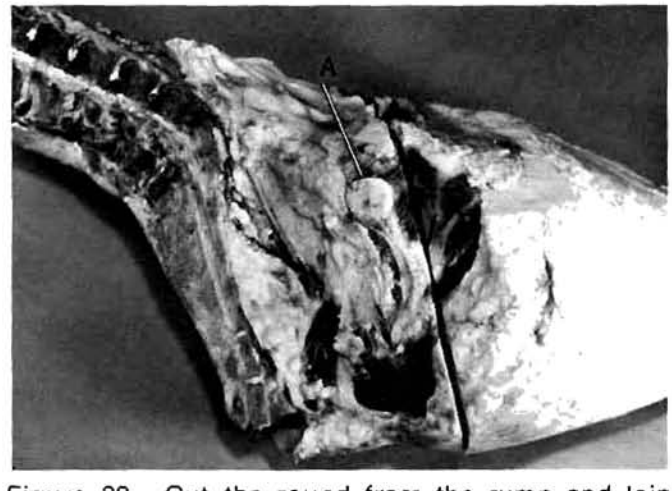


Figure 39. Cut the round from the rump and loin about 1 inch from the aitchbone (*A*) and parallel to it. This cut should be at right angles to the length of the leg.

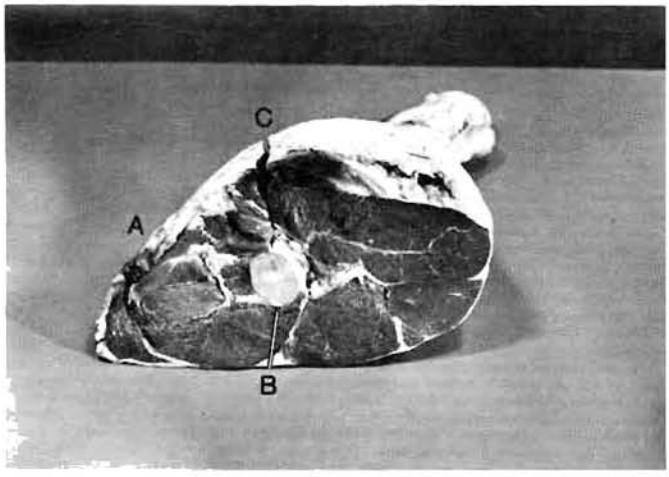


Figure 40. Remove the tip of the round (*A*) from the round by cutting down along the midline of the long round bone (*B*) to the stifle joint (*C*). Turn the round over and make a similar cut on the other side.

Figure 41. Make a cut through the stifle joint membranes, and pull the tip of the round from the round bone.

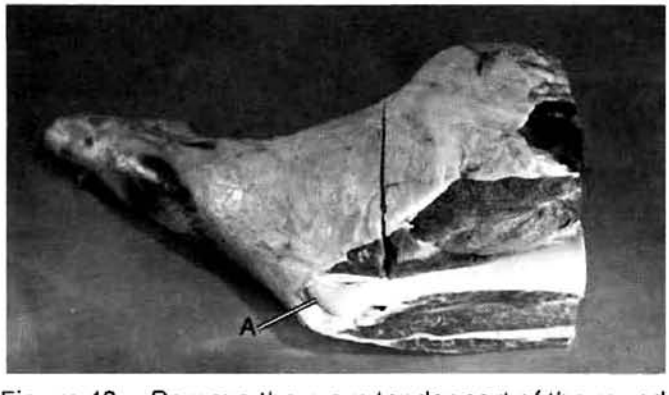


Figure 42. Remove the more tender part of the round by making a cut, parallel to the face or end of the round, about 1 inch above the stifle joint (*A*). Saw through the round bone.

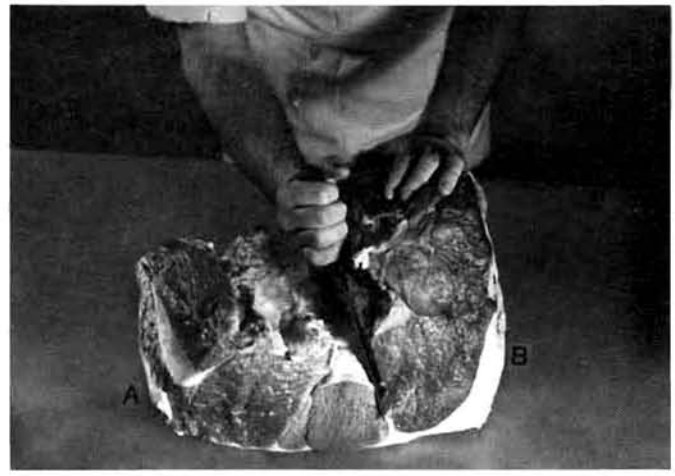


Figure 43. Remove the bone from the round and divide the boned cut into the bottom (*A*) and top (*B*) rounds, the outer and inner rounds, respectively. Follow the natural division between the top round, which appears to be a single muscle, and the 2 large muscles of the bottom round.

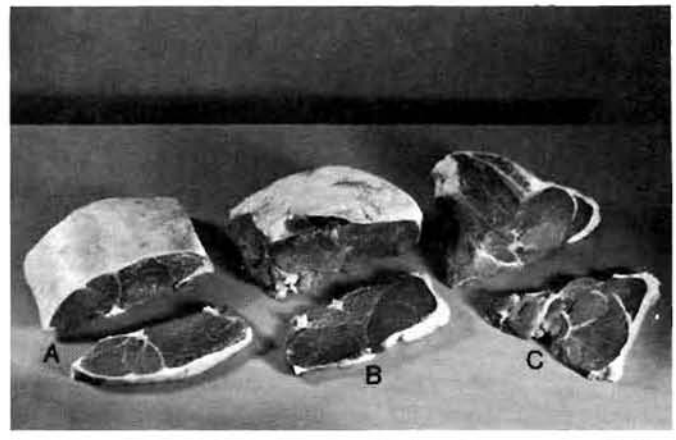


Figure 44. The bottom round (*A*), the top round (*B*), and the tip of the round (*C*) can be cut into steaks or roasts. The tip of the round of good to choice beef is of broiling quality. Top round is more tender than bottom round.

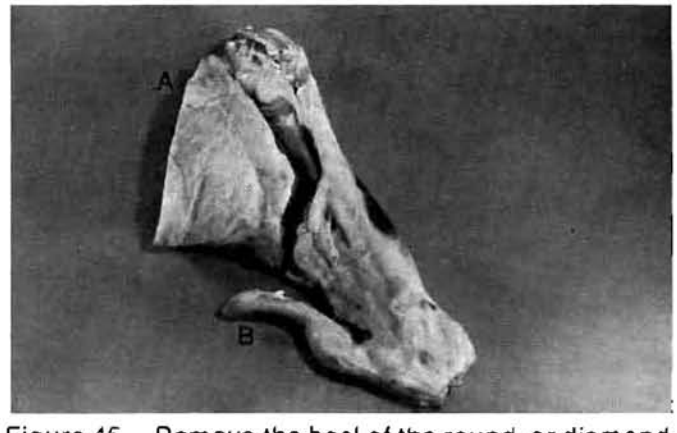


Figure 45. Remove the heel of the round, or diamond cut (*A*), by cutting loose the tendon (*B*) and following closely along the shank bone. Use the heel of the round as a pot roast, for stew, or ground beef. Trim the meat from the shank, stew or grind it, and use the shank bone for soup stock.

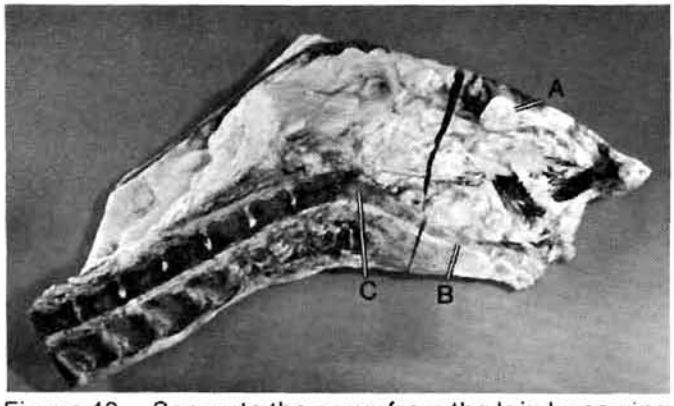


Figure 46. Separate the rump from the loin by sawing about 1 inch in front of the aitchbone (*A*), and through the third and fourth sacral vertebrae (*B*) of the backbone or 2½ vertebrae from the arch of the backbone (*C*). This cut will be approximately parallel to that made in separating the forequarter from the hindquarter.

Figure 47. Bone and roll the rump. Place it on the cutting table, inside up. Cut along the aitchbone (*A*) to expose the round bone (*B*).

Figure 48. Remove the round bone.

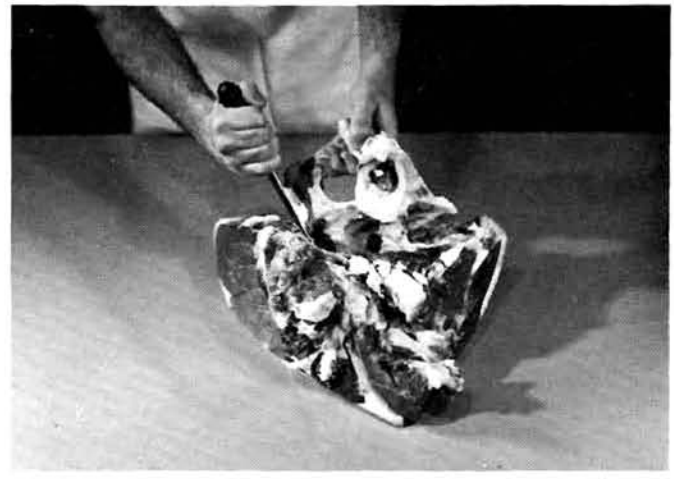


Figure 49. Then cut along the aitchbone or pelvic bone and cut it out. Also remove the backbone.

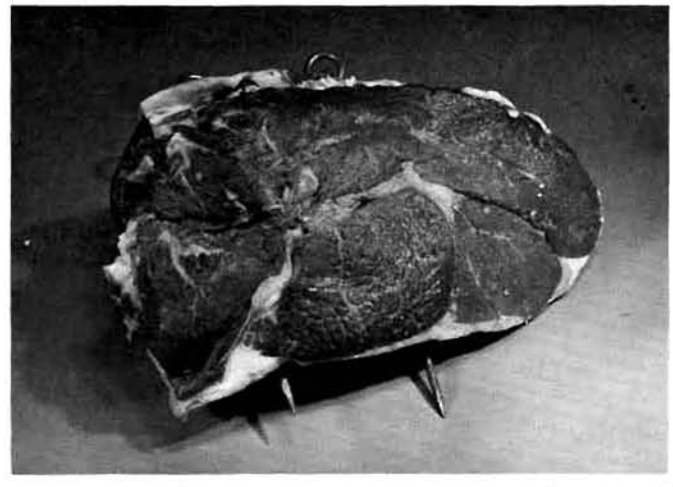


Figure 50. Shape the boned rump, using metal skewers, with the end adjacent to the round as a side of the roll. Roll and tie the boned rump. It makes an attractive oven roast.

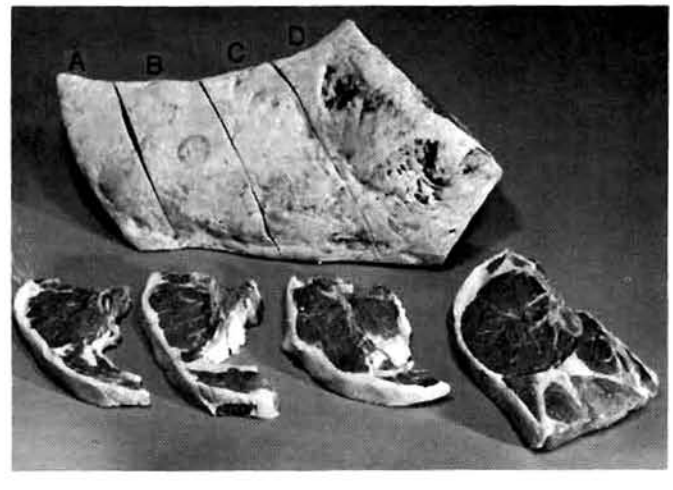


Figure 51. Cut the loin into the following steaks or roasts: club (*A*), T-bone (*B*), porterhouse (*C*), sirloin (*D*).

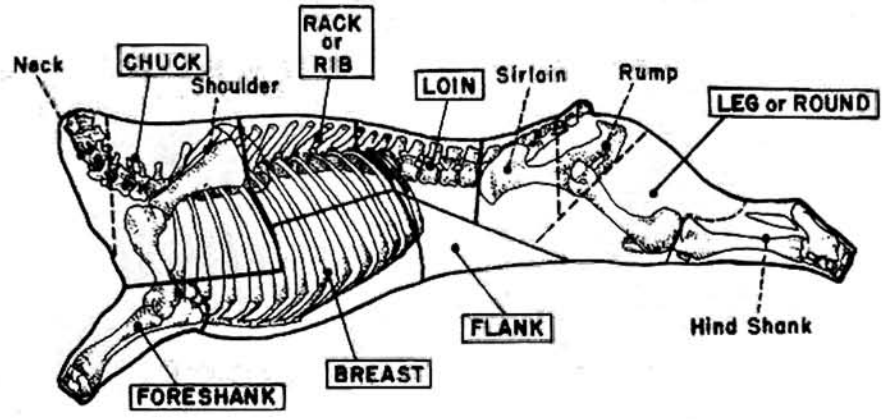


Figure 52. Diagram showing the wholesale (marked in boxes) and retail cuts from a veal carcass.

Veal is ordinarily dressed hog style; that is, the hide is left on, the underline is opened from the tail to the throat, and the head and feet are cut off. Leaving the hide on keeps the carcass fresh in appearance, prevents it from drying out and discoloring, and lessens contamination during shipping or holding. If the carcass is to be processed promptly, skin it entirely during slaughtering. Otherwise, remove the hide just before the carcass is to be cut up. Then saw the carcass down through the middle of the backbone.

The wholesale or primal cuts from a veal carcass, handled as described, are shown diagrammatically in figure 52.

Divide each side into forequarter (foresaddle) and hindquarter (hindsaddle), by cutting just behind and along the last rib, from the flank to the backbone. Saw across the backbone.

The cuts from the forequarter are shown in figure 53. Cut the breast and the foreshank from the forequarter, leaving about 2 inches of rib bone below the eye muscle at the exposed rib end, and about 3 inches of rib bone below the eye muscle at the fore end. Continue the cut forward, until the third rib is reached. Then drop the cut about 3 inches to meet a cut across the foreshank, just above the elbow joint and parallel to the back. The breast can be stewed, boned and rolled, or stuffed. Trim the meat from the shank for stew or ground veal.

Separate the rib or rack from the shoulder by cutting between the fifth and sixth ribs, counting from the neck. Chops can be cut from the rib, or it can be used as a roast. The shoulder can be used, as is; however, it is best when boned and rolled.

The cuts from the hindquarter are shown in figure 54. Cut out the kidney fat and kidney. Remove the kidney from the fat. Cut off the flank, following down the leg to the front and cutting forward to leave about 2 inches of

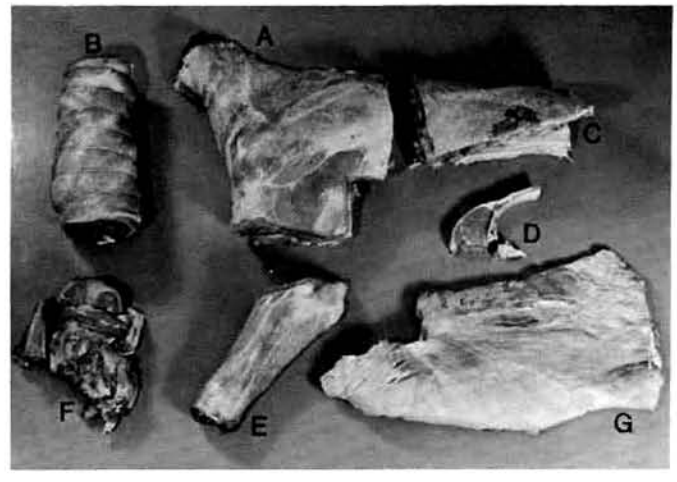


Figure 53. Cut the forequarter into the shoulder (*A*) which can be boned and rolled (*B*); the rib (*C*) which can be cut into chops (*D*); the foreshank (*E*) which is usually boned for stew (*F*) or ground; and the breast (*G*).

Figure 54. Cut the hindquarter into the round or leg (*A*) which is cut into cutlets (*B*); the rump (*C*) which is usually boned and rolled (*D*); and the loin (*E*) which can be cut into chops (*F*).

flank on the loin. Use the meat from the flank for stew or grind it. Cut the loin from the hindquarter just in front of the hip bone. The loin is usually cut into chops; it can be used as a roast. Separate the rump from the round just below the aitchbone and about parallel to it. Bone and roll the rump, or cut some chops from its sirloin end. Cut the round into cutlets until the stifle joint is reached. Trim the meat from the remainder of the round and hind shank for stew or ground veal.

LAMB AND MUTTON

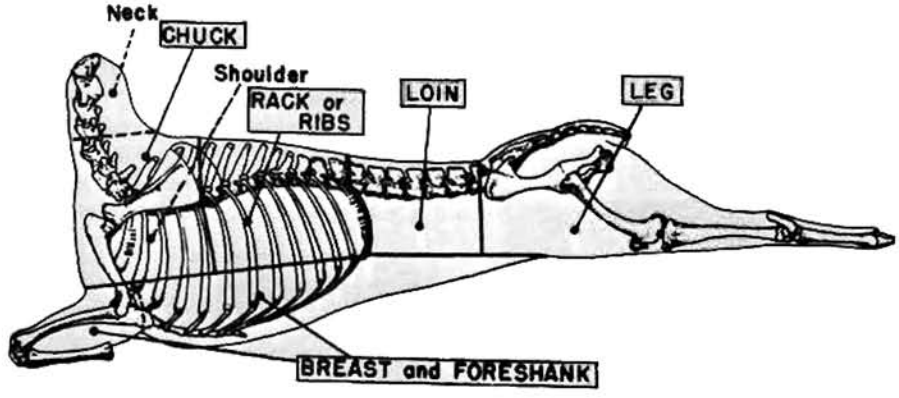


Figure 55. Diagram showing the wholesale (marked in boxes) and retail cuts from a lamb carcass.

The cuts derived from a lamb (or mutton) carcass, handled as described, are shown diagrammatically in figure 55. How to cut the lamb carcass is shown in figures 56 to 75.

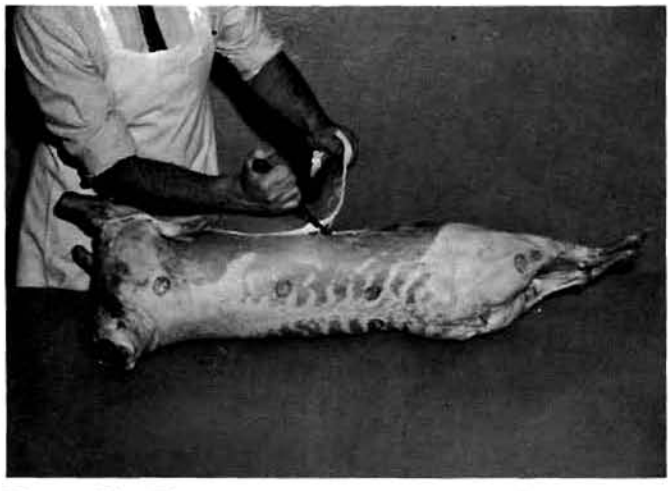


Figure 56. Place the carcass on its side. Cut the flank with the breast and foreshank from the loin, rack, and shoulder, starting at the cod or udder. Continue the cut through the ribs and across the shoulder, just above the elbow joint. Use a saw to cut through the ribs and above the arm bone.

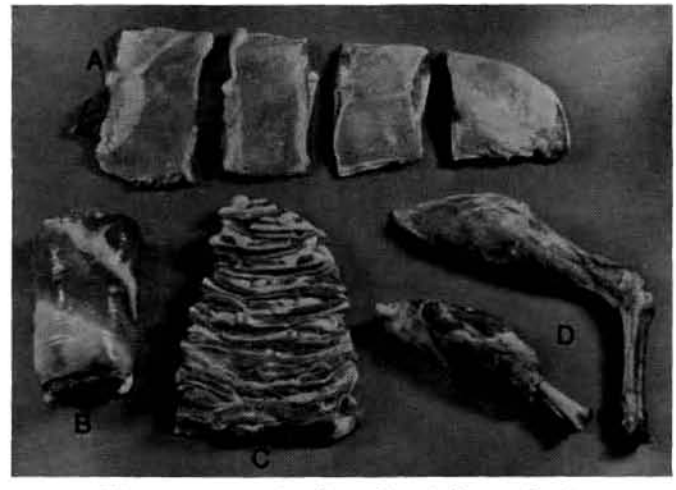


Figure 57. Remove the foreshank from the breast at its natural division. The breast can be cut into large pieces (*A*), boned and rolled (*B*), cut into riblets (*C*), or ground. French the foreshank by circling the bone 1½ inches above the knee joint (*D*) and remove the meat to expose the end of the bone. This is a mock drumstick.

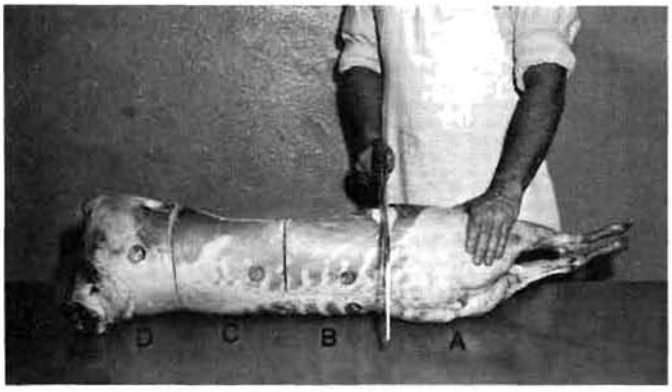


Figure 58. Remove the hind legs (*A*) by cutting just in front of the hip bones and at right angles to the backbone. Use a saw to cut through the backbone. Cut out the kidney fat, then remove the kidneys from the fat. Then separate the loin (*B*) from the ribs or rack (*C*) by cutting between the last 2 ribs on each side with a knife, and saw across the backbone. Separate the chuck (*D*) from the ribs by cutting between the fifth and sixth ribs, counting from the neck, and saw through the backbone.

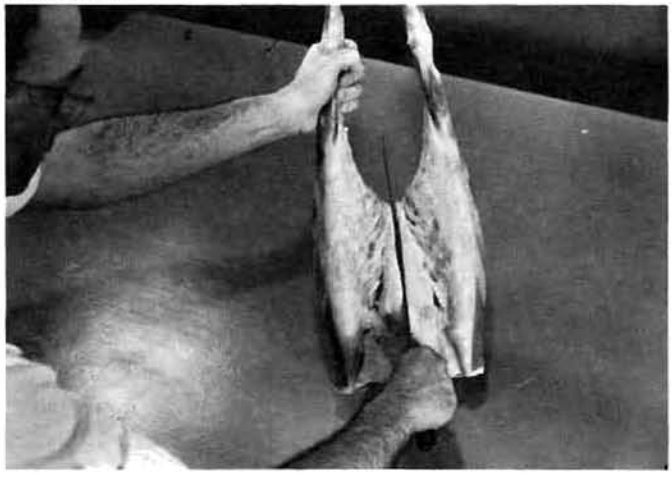


Figure 59. Separate the legs by cutting through the crotch. If the carcass is that of a young animal (lamb), split the pelvic bone with a knife. A saw may be required to split the pelvis of a mutton carcass. Complete the cut lengthwise through the backbone with a saw.

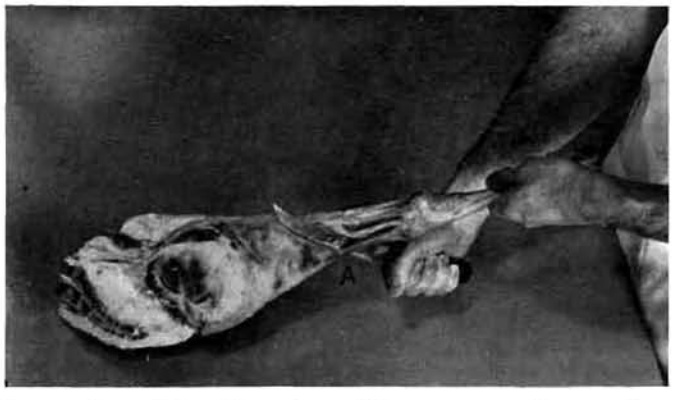


Figure 60. After trimming off the cod or udder and the tail, cut the tendon (*A*) where it joins the thick part of the leg.

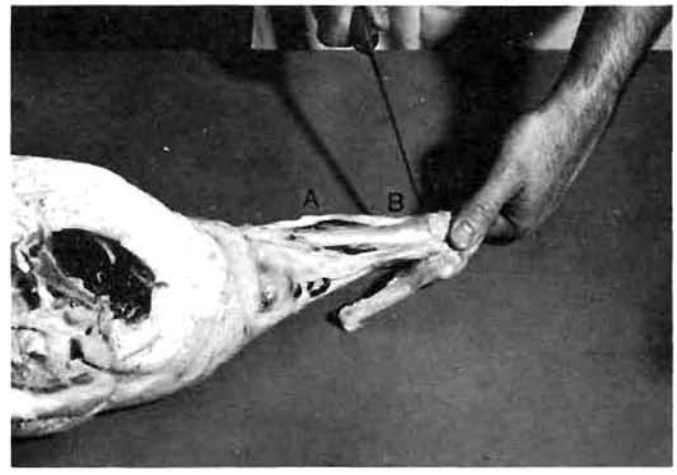


Figure 61. Make a shallow cut along each side of the leg bone (*A*) with the point of the knife. Be careful not to cut completely through the shank meat. Line the break joint (*B*), distinguished by a faint jagged line on the inside, just above the hock joint. Break the bone over the edge of the cutting table, leaving the meat attached to the shank bone.

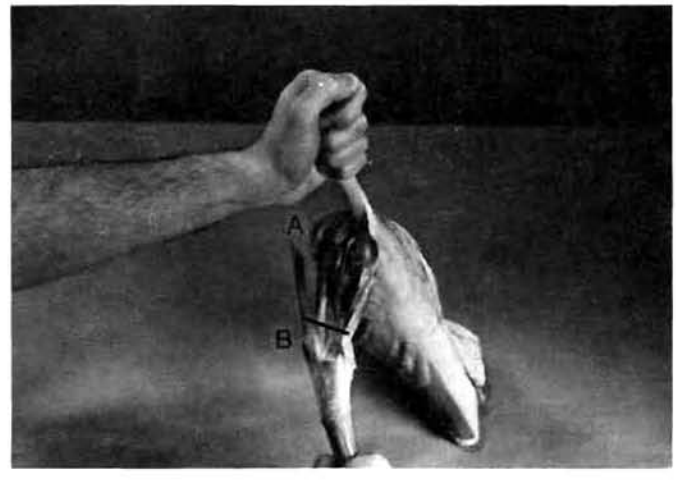


Figure 62. Strip the shank meat (*A*) from the leg bone and cut it off near the end of the bone (*B*).

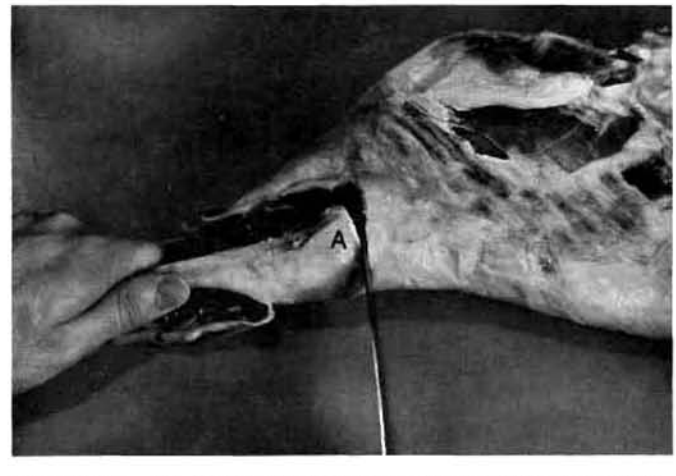


Figure 63. Remove the leg bone at the stifle joint (*A*).

Figure 64. Cut a pocket under the fell on the inside of the leg above the stifle joint. Fold the shank meat in and fasten it with a skewer or sew it in.

Figure 65. The American-style leg is ready for use. The bones of the sirloin end can be sawed through for ease in carving.

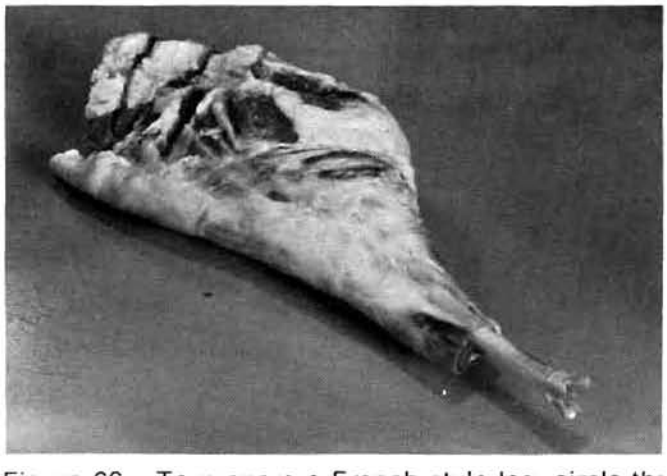


Figure 66. To prepare a French-style leg, circle the leg bone with a knife about 2 inches above the break joint, break the bone at the break joint, and remove the meat to expose the end of the bone.

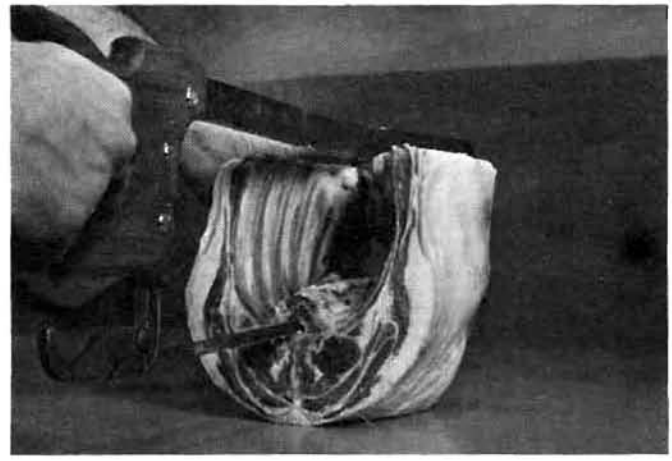


Figure 67. After cutting the neck off parallel to and flush with the back, cut the neck into slices, less than 1 inch thick, for moist-heat cooking. Then divide the shoulder by sawing lengthwise through the backbone.

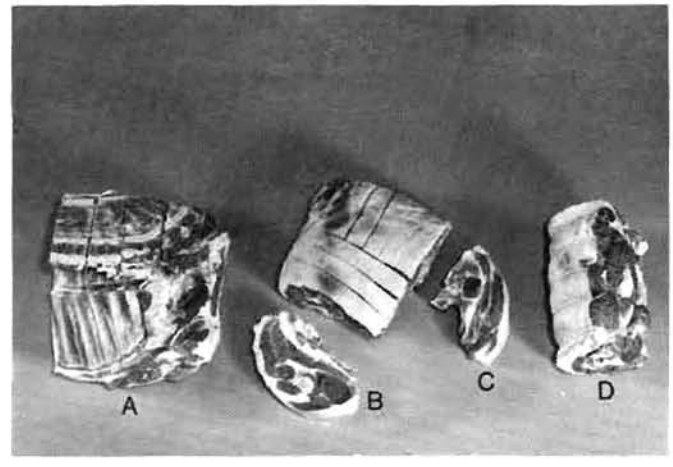


Figure 68. Use the shoulder as a roast (*A*) as is, cut it into arm (*B*) or blade (*C*) shoulder chops, or bone and roll it (*D*).

Figure 69. To bone the shoulder, place it on the cutting table with the inside up. Remove the ribs and vertebrae, as indicated, along the dotted line.

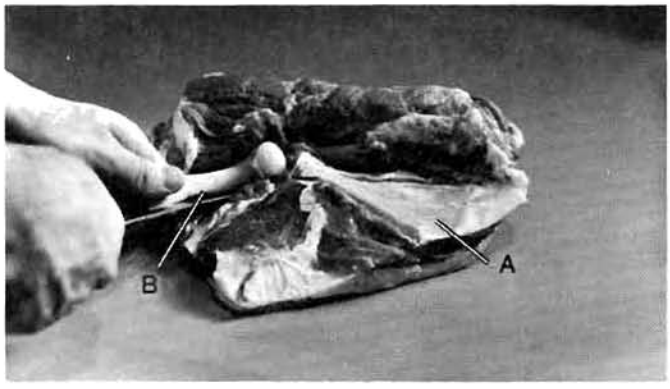


Figure 70. After pulling out the back strap, or yellow ligament, along the top of the shoulder, open the shoulder from the rib end, along the blade bone, or scapula (*A*), to the arm side, and along the arm bone (*B*). Unjoint and remove the arm bone. Then make a cut outlining the blade bone, scrape its ridge, or keel, so that the membrane clinging to it can easily be separated. and strip the bone from the meat by pulling.

Figure 71. Roll the boned shoulder into shape, using the rib side as a face or end, and tie to make a rolled shoulder roast. This roast can be cut into boneless shoulder chops. The boned shoulder can also be sewed along the edges of the 2 opened sides, after stuffing the pocket, cushion style.

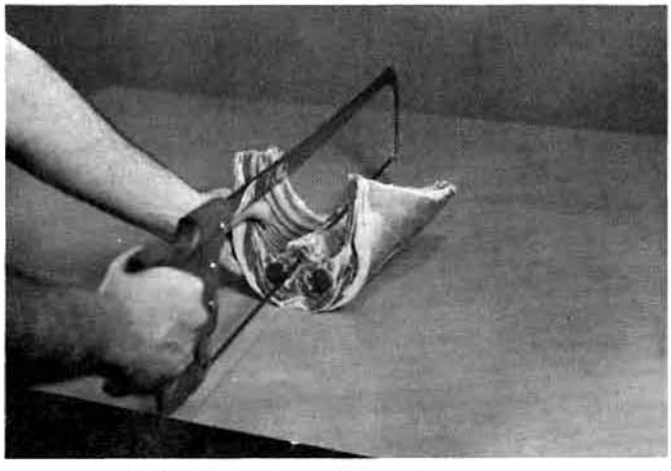


Figure 72. Saw the rack lengthwise through the backbone. If not sawed through the backbone, this cut can be boned and rolled.

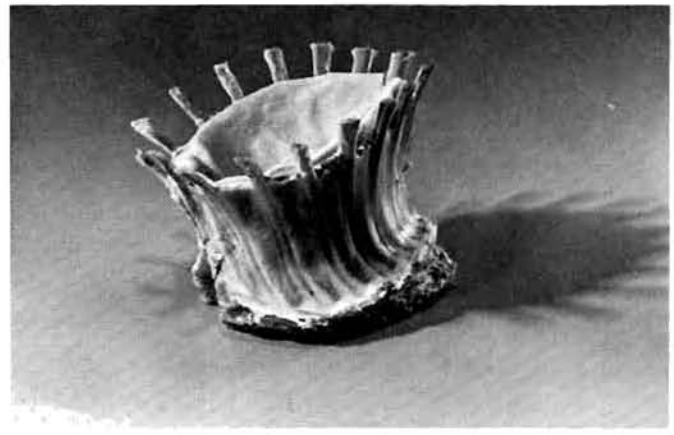


Figure 73. On occasion, the rack can be prepared into a "crownroast," by removing the backbone and the end of the shoulder blade and tying the Frenched ribs in the form of a crown.

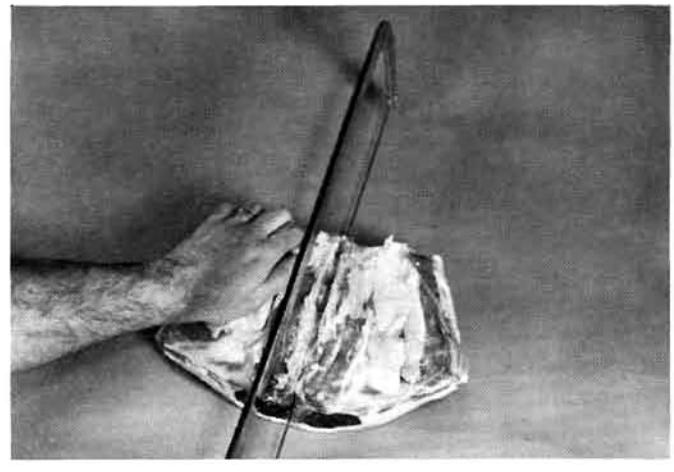


Figure 74. Saw the loin lengthwise through the backbone. If not sawed through the backbone, this cut can be boned and rolled.

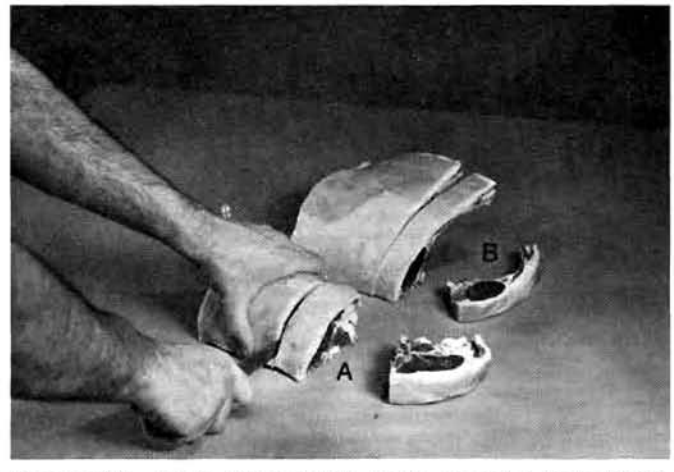


Figure 75. Loin chops (*A*), each about 1-inch thick, and rib chops (*B*), each containing a rib, are cut from the halves of the loin and rack, respectively.

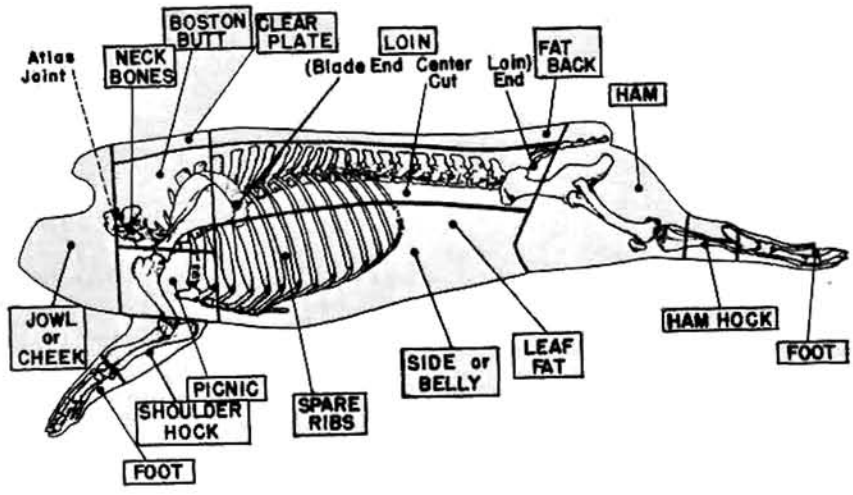


Figure 76. Diagram showing the wholesale (marked in boxes) and retail cuts from a pork carcass.

Process pork as soon after slaughter as possible because it is especially subject to spoilage (rancidity). It can be cut as soon as it is cold and firm. The head is usually removed at the time of slaughter, with the jowl or cheek remaining attached to the carcass. The leaf or kidney fat, which lines the abdominal cavity and surrounds the kidney, is also commonly removed at the time of slaughter to be rendered into leaf lard. The kidney is removed from the leaf fat before it is chopped or ground for rendering.

A method of cutting pork is shown diagrammatically in figure 76. How to cut a pork carcass is shown in figures 77 to 91.

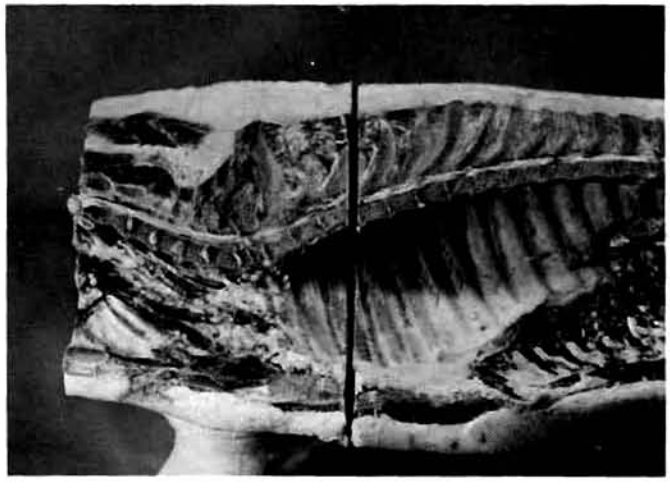


Figure 77. After removing the jowl by cutting close to the atlas or first joint and at right angles to the back, saw off the shoulder across the third rib, counting from the neck. Make this cut parallel to the cut made in removing the head or at right angles to the back. The jowl can be cured or the meat can be used for lard, sausage, or headcheese.

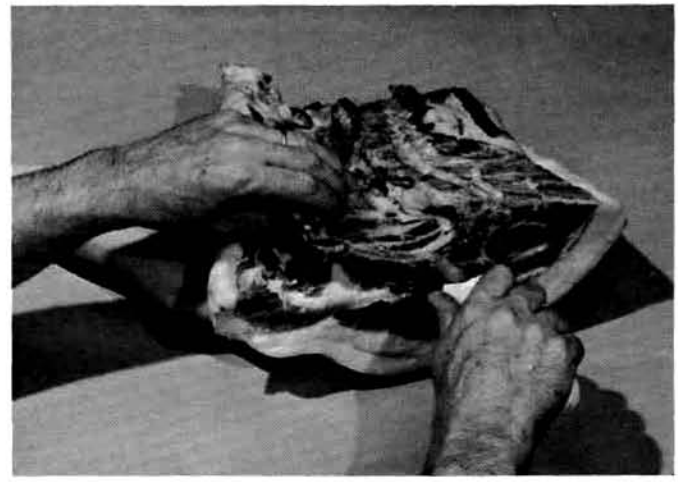


Figure 78. Remove the neck bones or spareribs. Follow the ribs and vertebrae closely. Avoid cutting into the shoulder. The shoulder can now be handled in several ways. It can be divided into the Boston butt and picnic, and trimmed (figs. 79 to 82). An alternative method is to trim and square the whole shoulder, and cure and smoke it (fig. 83).

Figure 79. Separate the shoulder into the picnic (*A*) and Boston butt (*B*), by cutting about 1 inch below the shoulder blade (*C*) and perpendicular to the cut at the third rib.

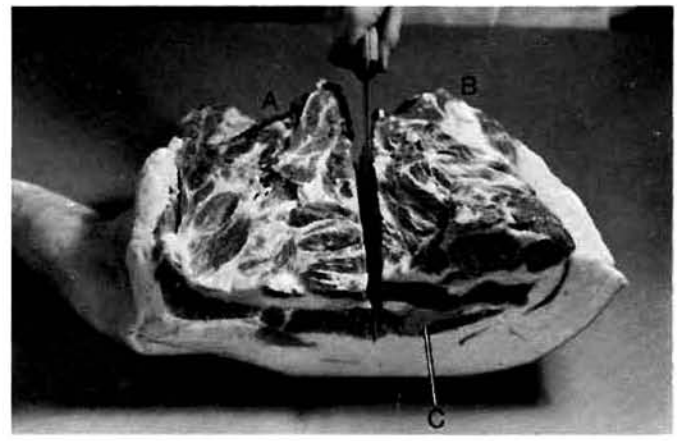


Figure 80. Separate the clear plate (*A*) from the Boston butt, leaving an even covering of fat, about ¼ inch thick, over the lean meat. Cut the butt into slices, or bone and roll it.

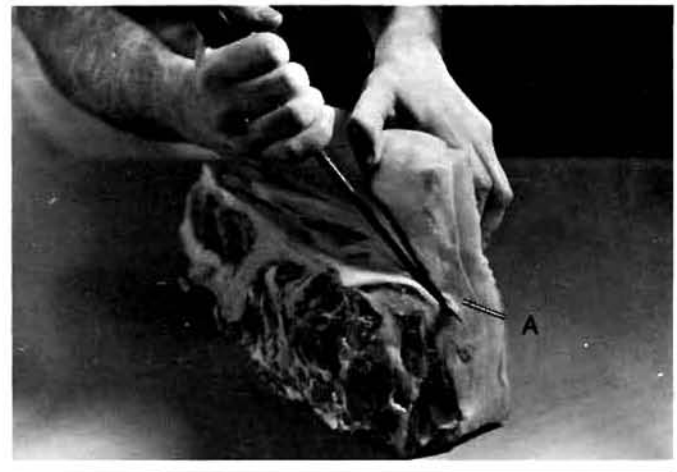


Figure 81. Trim the breast (*A*) and neck (*B*) from the picnic. These trimmings can be used for sausage. The picnic can be boned and prepared cushion style with a pocket, or rolled and tied.

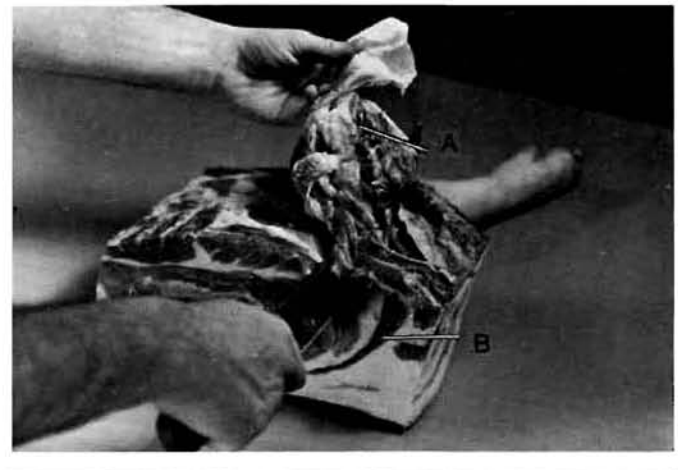
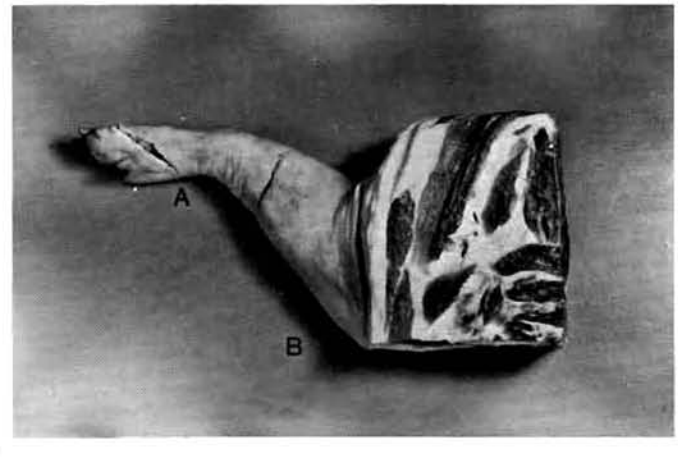


Figure 82. Square the picnic by sawing off the foreleg, parallel to the cut made in dividing the shoulder. Trim the toes off the foot (*A*), and then remove the hock (*B*) just above the knee.



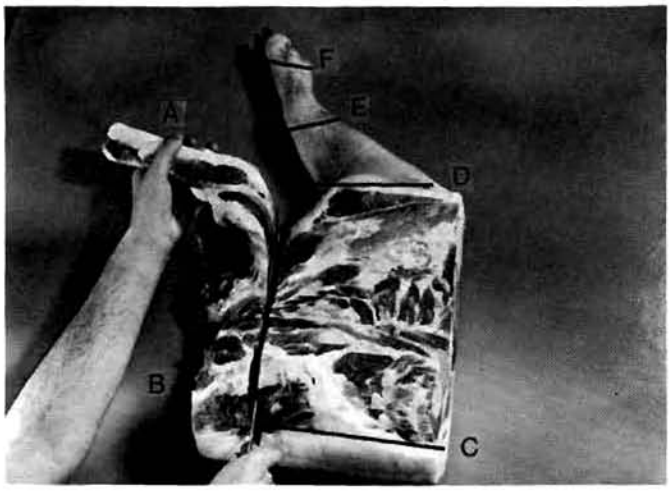


Figure 83. Trim off the breast (*A*) by following the natural crease between the breast and foreleg. Then remove the neck (*B*) by cutting parallel to the rear side of the shoulder. The top of the shoulder (*C*) can be squared. Saw off the foreleg about 1 inch below the elbow (*D*). Remove the hock just above the knee (*E*), and trim the toes off the foot (*F*).

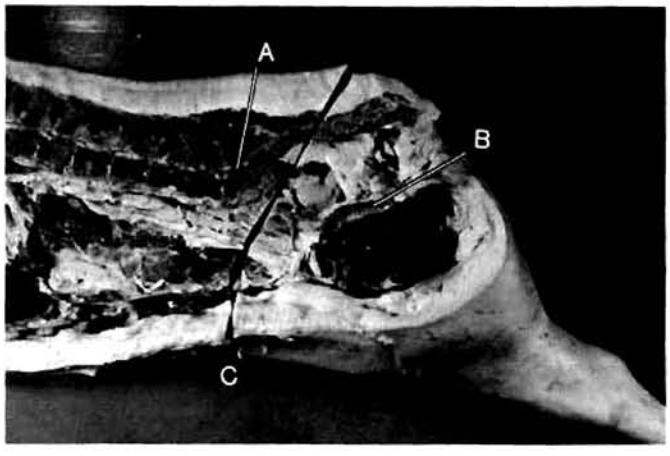


Figure 84. Separate the ham from the middle by sawing across the backbone and through the pelvic bone. Make this cut between the second and third sacral vertebrae and perpendicular to the shank. In larger pork carcasses, make this cut midway between the aitchbone and the rise in the backbone. Cutting back a little on the flank (*C*) will make a longer side.

Figure 85. Separate the loin from the side by making a straight cut from a point close to the lower edge of the backbone at the shoulder end, to a point just below the tenderloin muscle (*A*) from which the ham was cut.

Figure 86. Separate the fat back (*A*) from the loin. Cut with a steady pulling movement on one side. then turn the loin upside down, and repeat the procedure on the other side. Leave an even covering of fat, about ¼ inch thick, on the loin. The loin can be cut into roasts or chops. Usually the center of the loin is cut into chops, and the ends are used as roasts.

Figure 87. Trim the regular spareribs (*A*) from the side or belly. If a maximum of bacon is desired, turn the blade of the knife towards the ribs so that it will not cut into the meat.

Figure 88. Square the side by cutting a strip parallel to the loin and wide enough to remove the nipples. The flank end may also have to be squared. The trimmed side is then ready to be cured into bacon or used as fresh side pork.

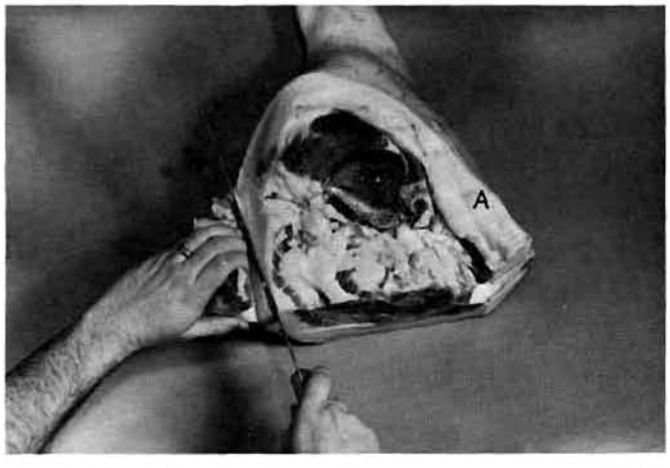


Figure 89. Trim the ham down over the rear side to remove the backbone and the tail. Similarly, remove the flank (*A*) by trimming down over the front side.

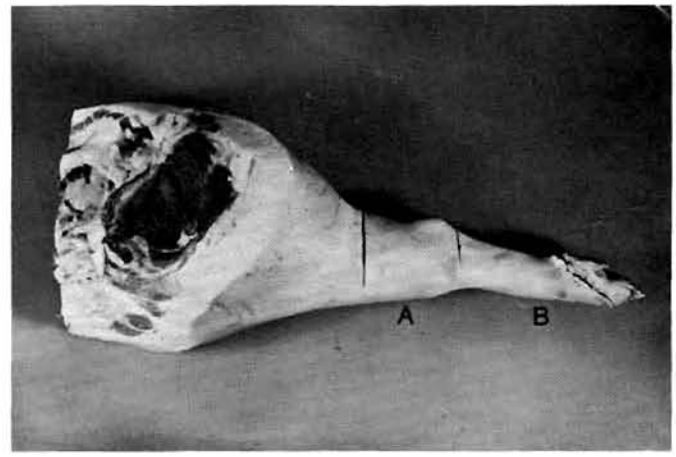


Figure 90. Saw off the hind leg about 1 inch below the thick part of the ham. Remove the hock (*A*) by cutting just below the hock joint. Trim the toes off the foot (*B*).

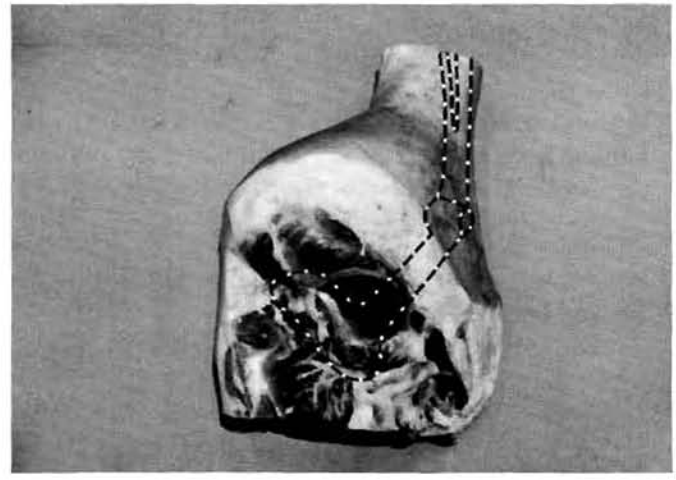


Figure 91. The ham can be used whole or cut into roasts, fresh or cured. Center slices, cut about parallel with the aitchbone, make ham steaks. The ham can be boned and rolled by removing the bones outlined.

YIELDS OF TRIMMED MEAT

Carcass yields of trimmed meat vary according to cutting methods and fatness. The following figures are averages and can be used to estimate expected yields[1]. The beef example given is for a 615-pound beef carcass from a 1000-pound steer before slaughter. The pork example is for a 150-pound carcass from a 210-pound market hog. Individual carcasses may vary substantially from these figures.

Beef

	Saleable Beef (lb)	*Other (lb)*
CHUCK 164.8 lb (26.8% of total carcass)		
Blade pot-roast	59.3	
Stew or ground beef	32.1	
Arm pot-roast	22.3	
Cross rib pot-roast	10.7	
Boston cut	9.9	
Fat and bone		30.5
Total	134.3 lb	30.5 lb
BRISKET 23.4 lb (3.8% of total carcass)		
Boneless	9.4	
Fat and bone		14.0
Total	9.4 lb	14.0 lb
SHANK 19.1 lb (3.1% of total carcass)		
SHORT PLATE 51.0 lb (8.3% of total carcass)		
Plate, stew, short ribs	40.8	
Fat and bone		10.2
Total	40.8 lb	10.2 lb
FLANK 32.0 lb (5.2% of total carcass)		
Flank steak	3.2	
Ground beef	12.6	
Fat		16.2
Total	15.8 lb	16.2 lb
MISC. 22.1 lb (3.6% of total carcass)		
Kidney, hanging tender	3.6	
Fat, suet, cutting losses		18.5
Total	3.6 lb	18.5 lb
RIB 59.0 lb (9.6% of total carcass)		
Standing rib roast	24.2	
Rib steak	12.4	
Short ribs	4.7	
Braising beef	2.7	
Ground beef	3.5	
Fat and bone		11.5
Total	47.5 lb	11.5 lb
LOIN 105.8 lb (17.2% of total carcass)		
Porterhouse steak	18.7	
T-bone steak	9.5	
Club steak	5.2	
Sirloin steak	41.4	
Ground beef	2.9	
Fat and bone		28.1
Total	77.7 lb	28.1 lb
ROUND 137.8 lb (22.4% of total carcass)		
Top round (inside)	21.0	
Bottom round (outside)	20.3	
Tip	13.1	
Stew	8.3	
Rump	4.8	
Kabobs or cubes	2.1	
Ground beef	14.2	
Fat and bone		54.0
Total	83.8 lb	54.0 lb

SUMMARY
615-lb choice steer carcass

Fat, bone, and loss (30%)	183 lb
Saleable beef (70%)	432 lb
Dressed out carcass, 61.5% of 1000-lb live steer	615 lb

Pork

	Saleable Pork (lb)	*Other (lb)*
SHOULDER 23.1 lb (15.4% of total carcass)		
Boston shoulder	9.4	
Fat for lard		.5
Picnic shoulder cubes	7.0	
Bone		2.8
Hocks	3.4	
Total	19.8 lb	3.3 lb
LOIN 27.0 lb (18.0% of total carcass)		
Blade roast (5 rib)	6.3	
Center chops	13.3	
Sirloin roast	4.2	
Fat for lard		3.2
Total	23.8 lb	3.2 lb
SIDE 31.7 lb (21.1% of total carcass)		
Bacon, cured	24.0	
Sausage trimmings	2.0	
Spareribs	5.7	
Total	31.7 lb	

1. Cutting yields taken from National Live Stock and Meat Board.

	Saleable Pork (lb)	*Other (lb)*
HAM 31.5 lb (21.0% of total carcass)		
Rolled leg of pork roast, boneless	19.8	
Sausage trimmings	2.8	
Skin	2.2	
Fat for lard		3.2
Bone and shrink		3.5
Total	24.8 lb	6.7 lb
MISC. 36.7 lb (24.5% of total carcass)		
Jowl, trimmed	4.5	
Feet, tail, neckbones	9.0	
Sausage trimmings	6.4	
Fat for lard		16.8
Total	19.9 lb	16.8 lb

SUMMARY
150-lb hog carcass

Total pork cuts (80%)	120.0 lb
Total fat for lard (16%)	23.7 lb
Bone and shrink (4%)	6.3 lb
Dressed out carcass, 71.4% of 210-lb live hog	150.0 lb

No endorsement of any product mentioned herein is intended, nor is criticism of unnamed products implied.

Cooperative Extension, New York State College of Agriculture and Life Sciences, New York State College of Human Ecology, and the New York State College of Veterinary Medicine, at Cornell University, and the U.S. Department of Agriculture cooperating. In furtherance of acts of Congress May 8 and June 30, 1914, and providing equal opportunities in employment and programs.

Cornell Cooperative Extension—Helping You Put Knowledge to Work

---