

7-1944

## EC248 Beef on the Farm

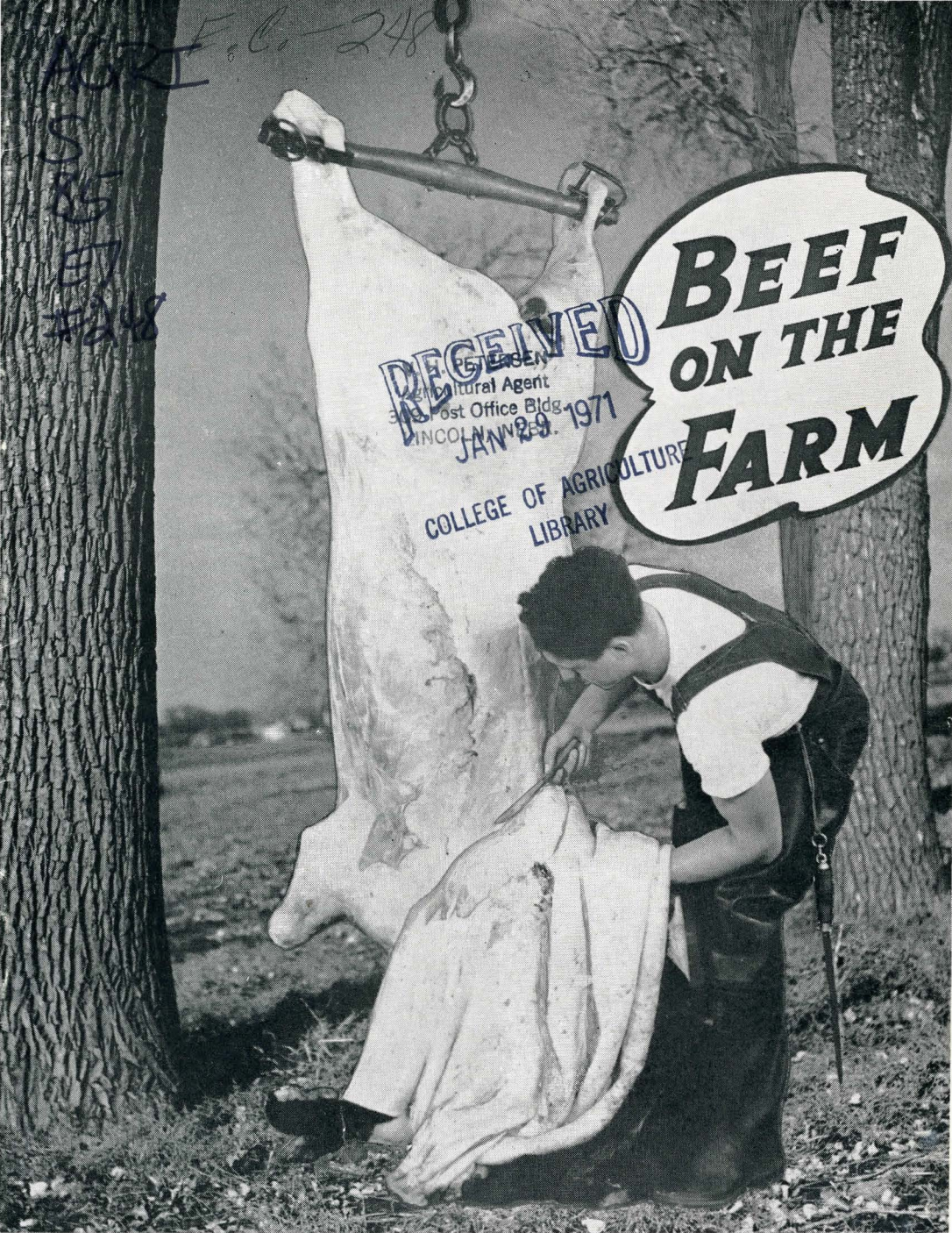
William J. Loeffel

Follow this and additional works at: <http://digitalcommons.unl.edu/extensionhist>

---

Loeffel, William J., "EC248 Beef on the Farm" (1944). *Historical Materials from University of Nebraska-Lincoln Extension*. 4459.  
<http://digitalcommons.unl.edu/extensionhist/4459>

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



Extension Service, University of Nebraska  
College of Agriculture, Extension Circular 248



## CONTENTS

	Page
Equipment .....	3
Time of Slaughter .....	4
Skinning .....	5
Siding .....	8
Brisket Sawing .....	9
Fell Beating .....	12
Splitting, Washing, Shrouding .....	14
Chilling .....	17
Dressing Percentage .....	17
Shrinkage .....	17
Beef Cutting .....	17
Ribbing Down .....	19
"Breaking" the Forequarter .....	19
Cutting the Hindquarter .....	21
Retail Cutting .....	21
The Chuck .....	22
The Rib .....	22
The Foreshank .....	23
The Brisket .....	24
The Navel End .....	24
The Flank .....	24
The Loin .....	24
Club Steaks .....	25
T-Bone Steaks .....	25
Porterhouse Steaks .....	26
Sirloin Steaks .....	26
The Round .....	26
Canning .....	27
Corning .....	27
Drying .....	28
Freezing .....	28
Beef Suet .....	29
Rules for Safety .....	31

This circular has been prepared for use of farm families who slaughter, cut and preserve their own beef. The methods advocated are followed in slaughtering and meat cutting demonstrations arranged by county extension agents and livestock specialists of the agricultural extension service. These recommendations are based upon experiences of the author in conducting many such demonstrations throughout Nebraska.

Illustrations were made available through the courtesy of Morton Salt Company.

# Beef On the Farm

*William J. Loeffel*

**Y**EARLINGS or light cattle are usually preferred for farm slaughter because they produce small, tender, family-size cuts. Heifers are used by many because of their lower market value. Heifers, too, are usually fatter than steers which have been fed the same rations. Fat cattle produce higher dressing yields and the meat keeps better. The meat from properly fattened animals is more juicy, more tender and has a better flavor. Ten to fifteen bushels of grain fed to a beef animal will materially improve the quality of the meat. Excessive fat, of course, may properly be looked upon as waste. Short-fed heifers should dress out 54 to 57%; long-fed heifers up to 61% or higher. To promote ease in dressing, cattle should be held off feed overnight, but allowed free access to water.

The animal selected for slaughter should be in good health and vigor, gaining in weight, and free from serious blemishes. Edible parts or organs which are abnormal in appearance should not be used for food until approved by a competent party. All bruises, abrasions and badly soiled parts of the carcass should be trimmed off. Scrupulous cleanliness and prompt and thorough chilling pay dividends in improved keeping quality of the meat.

## Equipment

Equipment for hoisting the carcass should be adequate and safe. If the beef is hoisted for bleeding, twenty feet of head room should be allowed. In most cases it will be necessary to stick the animals on the ground, in which case the hoist should be sufficiently high to permit hoisting to a height of ten feet. If the carcass is to be chilled on the hoist, more height is needed to keep it away from predatory animals. The hoist and its supports should be strong enough to sustain twice the live weight of the animal.

A hay rope is commonly used for hoisting a carcass. A chain hoist, although slow, is very convenient. The place for slaughtering should be free from mud, dust and manure. To prevent accidents the footing should be good.

A rope should be available to restrain the animal.

Knives should be sharp.

Steels are valuable to keep knives keen.

Whetstones are necessary to "touch up" the knife.

An ax, sledge or gun is necessary to stun the animal.

A meat saw is very useful although a wood saw may be pressed into service if necessary.

As a "spreader" a neckyoke or doubletree with cleaves may be used.

Pails, tubs, clean cloths and a good supply of clean water are desirable.

To prop up the animal on its back, a broomstick sharpened at both ends, or two sacks partially filled with dirt or sand may be used.



### Time of Slaughter

Where refrigeration is not available, farm slaughtering should not be undertaken unless the temperatures approach the freezing point at night. However, carcasses should not be permitted to freeze.

### Slaughtering

The animal should be securely snubbed to a post or tree with the head drawn close to the ground. A sharp blow is struck in the center of the forehead to render the animal unconscious. If this is impossible, the animal may be stunned by a sharp blow behind the poll. Shooting may be resorted to if the animal is wild; however, care should be taken to safeguard bystanders.



The animal should be securely snubbed for stunning.

As the animal falls, it should be turned with the head downhill. With the animal on its right side, the sticker takes his position beneath the neck. His right foot is placed beneath the animal's chin and his left foot in front of the front legs. In this way the neck is stretched out and the sticker is safeguarded against thrashing feet and head. Picking up the dewlap with the left hand, a long incision is made in the center of the throat. The knife is placed in the center of the neck just in front and underneath the breastbone. A cut is made toward the backbone, thus splitting the forking veins and arteries.



Stretching the neck protects the sticker. An incision is made along the neck and the knife inserted in the center just under the point of the breastbone, cutting the forking veins and arteries.

To hasten bleeding, one can stand at the rear of the animal and grasp the brush of the tail in both hands. The left foot is placed in the animal's flank and the man lunges forward. He relaxes momentarily and repeats the process until the blood is pumped from the carcass.

### Skinning

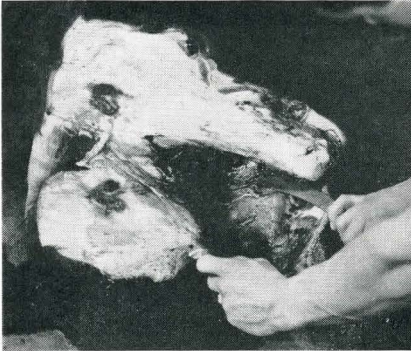
To prevent serious cuts, skinning should not be undertaken until all reflexes have ceased. The hide should be left in place as long as possible to protect the carcass from soiling. Leather is a critical war material and every effort should be made to take off the hide in the best possible manner.

An incision is made across the poll, to the left eye and down to the corner of the mouth. This utilizes the natural openings and takes off the face in one piece. The sticking cut is carried forward to the

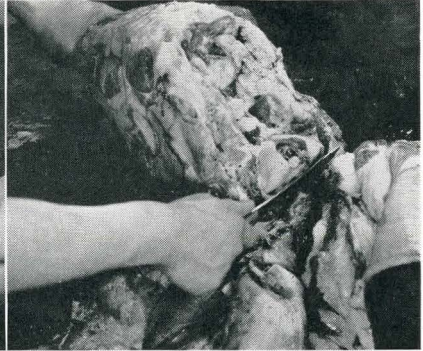


By alternately lunging forward on the left foot placed in the flank, then pulling on the tail, the blood is pumped from the body. Where possible, the head should be downhill.





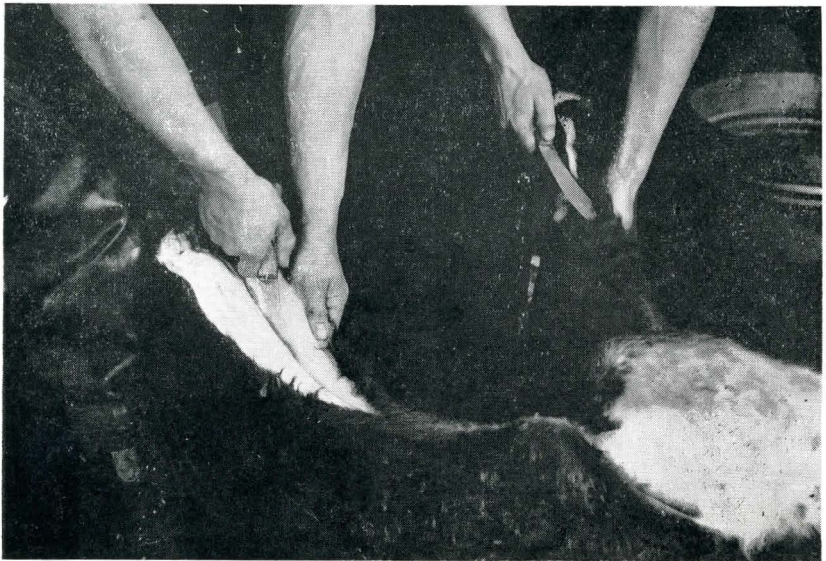
The hide is cut across the poll, then down to the left eye and the left corner of the mouth, leaving the face in one piece.



After skinning out the sides of the face, the head is unjointed at the first joint.

point of the jaw and both sides of the neck and head are skinned out. The head is unjointed at the first joint.

The head is washed with cold water and placed face-side down. The tongue is removed by cutting on both sides inside the jawbone and chopping the bones at the base of the tongue with a hatchet or cleaver. The tongue is washed, scraped from the tip to the base, and chilled. The cheek meat should be removed from both jaws. This



The carcass is propped squarely on its back. Then the skin on the foreshanks is ripped to a point just above the knees.

meat is suitable for grinding after washing and chilling. The head is split and the brain removed.

The carcass is placed squarely on its back by means of a sandbag or a block of wood on each side of the shoulder or by propping a sharpened broomstick against the brisket.

A cut is made across the back of the foot just above the hoof. The front leg is ripped up the back to a point well above the knee. The cut should be made to the right of the center so as to permit as much right-handed skinning as possible (for a right-handed skinner). In ripping, the knife should be held flat to avoid scoring the shank. The front leg is broken at the lowest or flat joint of the "knee." If the cut is made from the rear and the ligament cut on each side, the leg may be broken by a slight downward pressure.



After the front shanks are skinned out, they are unjointed at the lowest joint of the knees.

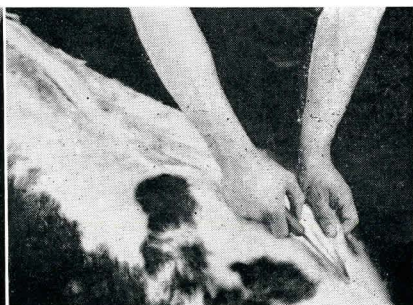
A center incision should be made forward starting at the rear of the breastbone. The knife should be squarely in the center and the cut should be carried forward to the sticking cut. The cut should go to the bone, cutting hide, flesh and fat at one stroke. The skin over the belly should now be ripped down the center to the rectum, keeping the knife flat.

The hind legs are ripped in the same manner except that the legs are pulled forward and held between the skinner's knees. The ripping cut should be made squarely over the point of the hock, then down to the center line just back of the cod of a steer or the udder of a heifer. The knife should be held flat in ripping, otherwise the round





Starting at the rear of the breastbone, a deep incision is made forward to meet the sticking cut.



The hide is ripped down the center of the belly to the rectum.

is badly scored with the point of the knife. Before the hind shanks are broken, the insides of the legs should be skinned out. As long as the shanks are on, it is possible to stretch out the legs, making the skinning much easier.

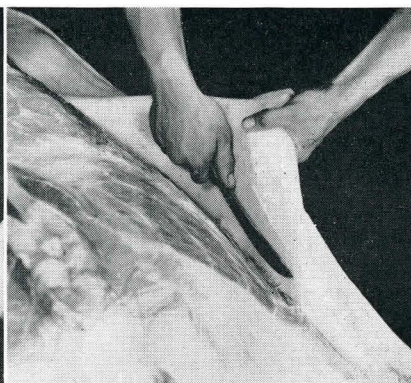
Over the outside of the hock, the skin should be removed only over the hock proper. The hind shank is unjointed at the lowest joint of the hock. The joint is scored at the back and sides and broken with a downward and outward pressure.

### Siding

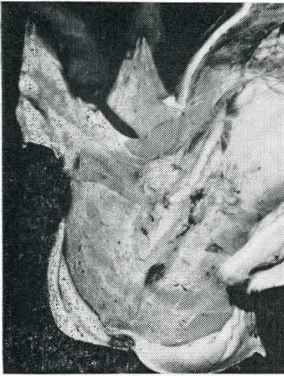
The removal of the hide over the belly and sides is spoken of as siding. After the hide has been loosened, it is stretched upward with the left hand. The blade of the knife is kept flat against the hide as



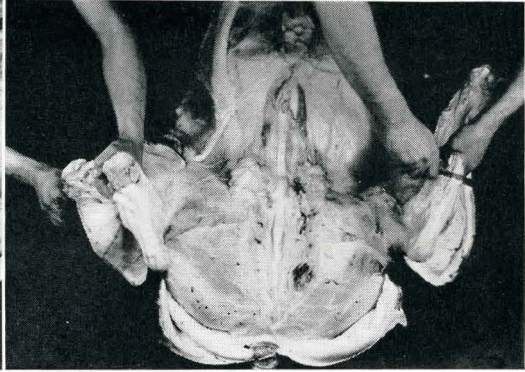
The hind shanks are ripped down the back. Stretching the leg forward, the buttocks are ripped to a point just back of the udder or cod.



In siding, the hide is stretched upward, not outward. The blade is kept flat against the hide.



The skin from the inside of the round and the flank can be removed most easily before the hind shanks are unjointed.



After scoring the hind shanks at the lowest joint of the hocks, the shanks are broken with a downward and outward pressure.

it moves forward, thus reducing cuts and scores and speeding the skinning process. Special care is taken to leave the thin membrane or fell on the carcass to prevent the carcass from drying out. In skinning back of shoulders, special care should be taken not to cut the tissues which support the front leg. The carcass should be sided as far down as possible.

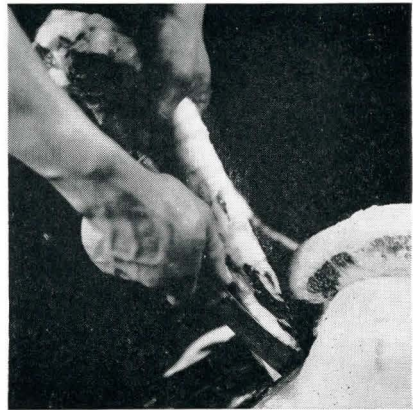
In all dressing operations it is imperative to keep the hands clean. Even thorough washing later will not completely cleanse the soiled parts and the keeping quality of the meat is lowered by contamination.

#### **Brisket Sawing**

At this point, the brisket should be sawed in the center. With a



The breastbone is split with a saw.



After the throat is split, the gullet and windpipe are dissected out and the gullet tied off.



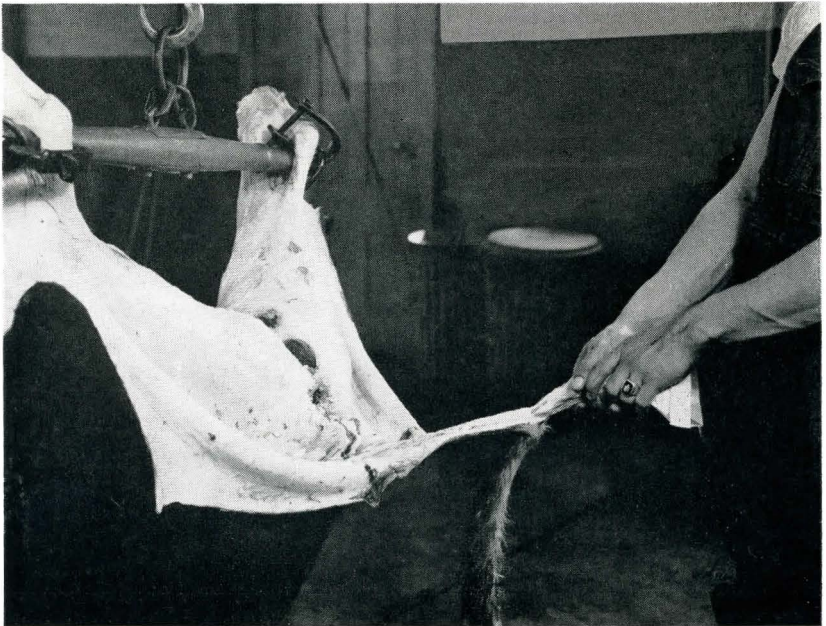


If the operator is squarely in the center seam, the pelvic or aitchbone may be split with a knife. However, with mature cattle, a saw must sometimes be used.



The belly wall is ripped down the center by "choking down" the knife, using the fist to crowd the viscera away from the cutting edge.

little careful dissection, the abdominal cavity is opened at the rear of the brisket sufficiently to introduce the right fist. The right fist clenches the knife well "choked down." The belly wall is ripped

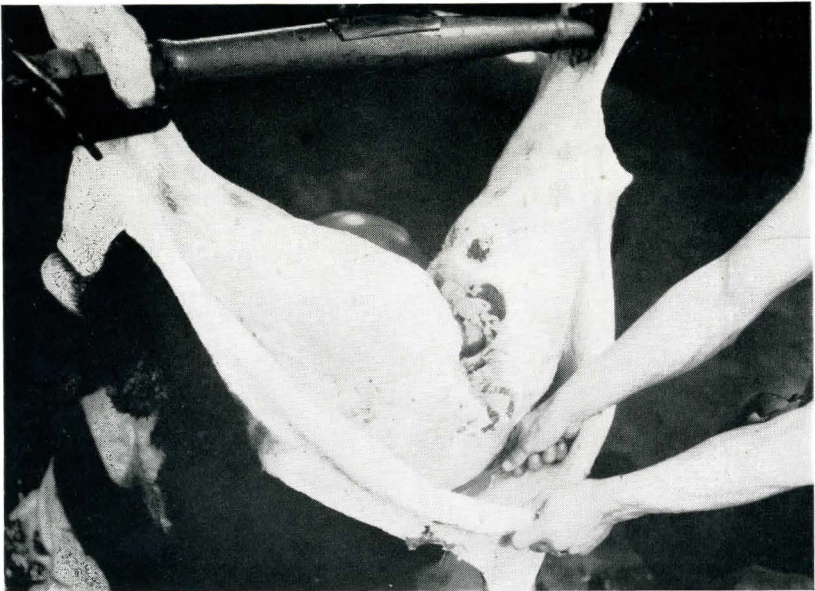


After the carcass is hoisted  $3\frac{1}{2}$  feet, the tail is split, unjointed and pulled out of the skin in this manner. A neckyoke makes a good spreader for light cattle.

down the center, the knuckles serving to crowd the intestines away from the cutting edge of the knife. When the aitchbone or pelvic bone is reached, the two rounds should be split. If the cut is made squarely in the center seam, the aitchbone may be split with a knife, although with mature cattle it is sometimes necessary to use a saw.

Both sides of the neck should be skinned out. It is a good plan to split the neck lengthwise along the lower side to dissect out the windpipe and gullet. The gullet should be tied to prevent the spilling of paunch contents.

The triangular flaps of skin at the rear of the rounds should be skinned as far down as possible. However, the skin over the outside of the rounds should not be loosened until the carcass is hoisted. At this point the spreader should be fastened in the hocks. Where a doubletree or a neckyoke is used, the tendons of the hocks should be fastened to the spreader by means of cleavices.

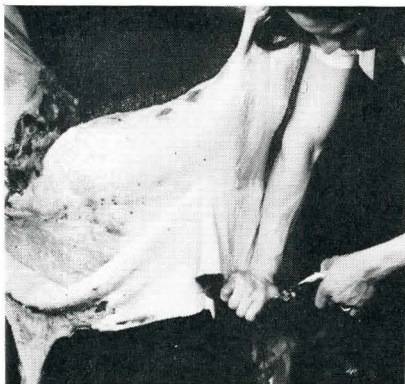


In the half-hoist position, the rump may be skinned easily from above.

The carcass is now hoisted until the rump is about  $3\frac{1}{2}$  feet from the floor. The skin on the tail is split along the under side. The skin is then loosened around the root of the tail and the tail unjointed close to the body. The root of the tail is then grasped firmly with a cloth and the tail pulled out of the skin.

The rectum and genital organs are loosened with a knife leaving as much fat in the pelvis as possible. The rectum should be tied to prevent soiling the carcass.





The thin inner membrane or "fell" should be left on the carcass to keep it from drying out. If this is done, the skin from the lower round may be pulled down for a short distance.



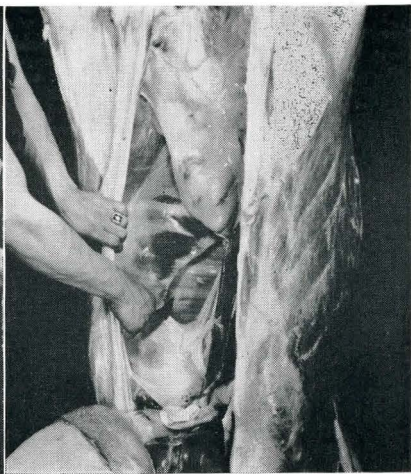
The hide from the round may be beaten off by striking the hide with the back of a cleaver.

### Fell Beating

The outside of the hocks should be carefully skinned, leaving the fell or thin membrane on the carcass. Properly started in this way, a firm hold can be taken of the skin of the hind shank and most of the round skinned by pulling downward on it. Then if a cleaver is at hand, one person can pull upward on the skin and the other beat the



The rectum is cut free from the backbone and tied off. The large first stomach or paunch must be torn loose from the left flank, leaving the kidneys and kidney fat in the carcass. The liver is attached to the right side.



The diaphragm divides the abdomen from the chest. The outer muscular part or skirt is left in the carcass. The central muscular part known as the hanging tender is left attached to the backbone.

skin with the back of the cleaver. A more attractive round results and less damage is done to the hide, to say nothing of a saving in time.

As the carcass is hoisted, the hide is removed from the back with the knife. A tub is placed in front of the carcass to catch the viscera. The rectum is cut free from the backbone, leaving the kidneys and kidney fat in the carcass. The intestines are rolled forward into the tub. On the right side, the liver is attached at the top by a large vein. This vein is cut and the hand run back of the liver freeing it from the carcass. The liver should be cut free from the intestines and the gall bladder trimmed out at once. The liver is washed in cold water and allowed to chill.

On the left side, the paunch or first stomach will be found attached to the body wall. The hand should be run between the paunch and the body wall to loosen it. After the paunch and the liver have been removed, the sheet of white tissue, the diaphragm, will be exposed. This separates the body cavity from the chest. Around the outer border and through the center of the diaphragm, there is muscular tissue. The diaphragm is cut where the "white joins the red." This leaves the central muscular part, known as the hanging tender, in the carcass. When the hanging tender is lifted up, a large vein beneath it will be exposed. This vessel is cut off and stripped down, taking with it the heart and lungs.



As the carcass is hoisted, the viscera are removed and the hide dropped down the back.



Work the viscera up promptly. The heart should be cut from the lungs, plunged in cold water and chilled. The lungs are usually discarded.

Surrounding the paunch is a layer of fatty tissue known as the caul, web, or apron. If clean, this may be used as edible fat. If contaminated, it should be used for inedible purposes.

The first and second stomachs are sometimes used for tripe. The contents are dumped and the stomachs thoroughly washed. They are then scalded at 150°F. for 8 to 10 minutes, after which the mucous coat may be removed with a hog scraper.

Starting where the small intestine leaves the stomach, the intestine is tied off and "run." The intestine is pulled with the left hand and a knife used to separate it from the mesentery or ruffle fat which holds it in folds. The ruffle fat is suitable for inedible uses. If the casings are to be saved, they should be tied off and run into a clean tub. The contents are stripped out between the thumb and finger. For the beginner, the casings are best handled by cutting them into 15- or 20-foot lengths. To turn casings, three persons are required. One turns up a cuff on the casing. The second pours tepid water into this cuff and the weight of this water turns the casings inside out. The third member "feeds in" the casing from above.

Casings then need to be slimed; that is, drawn through a notched stick. The notch is sharpened and the casing is forced against this by the thumb. As the casing is cleaned, it is wrapped on the left hand. Each casing must be cleaned several times. After cleaning, the casings may be rubbed with salt and stored under refrigeration until needed.

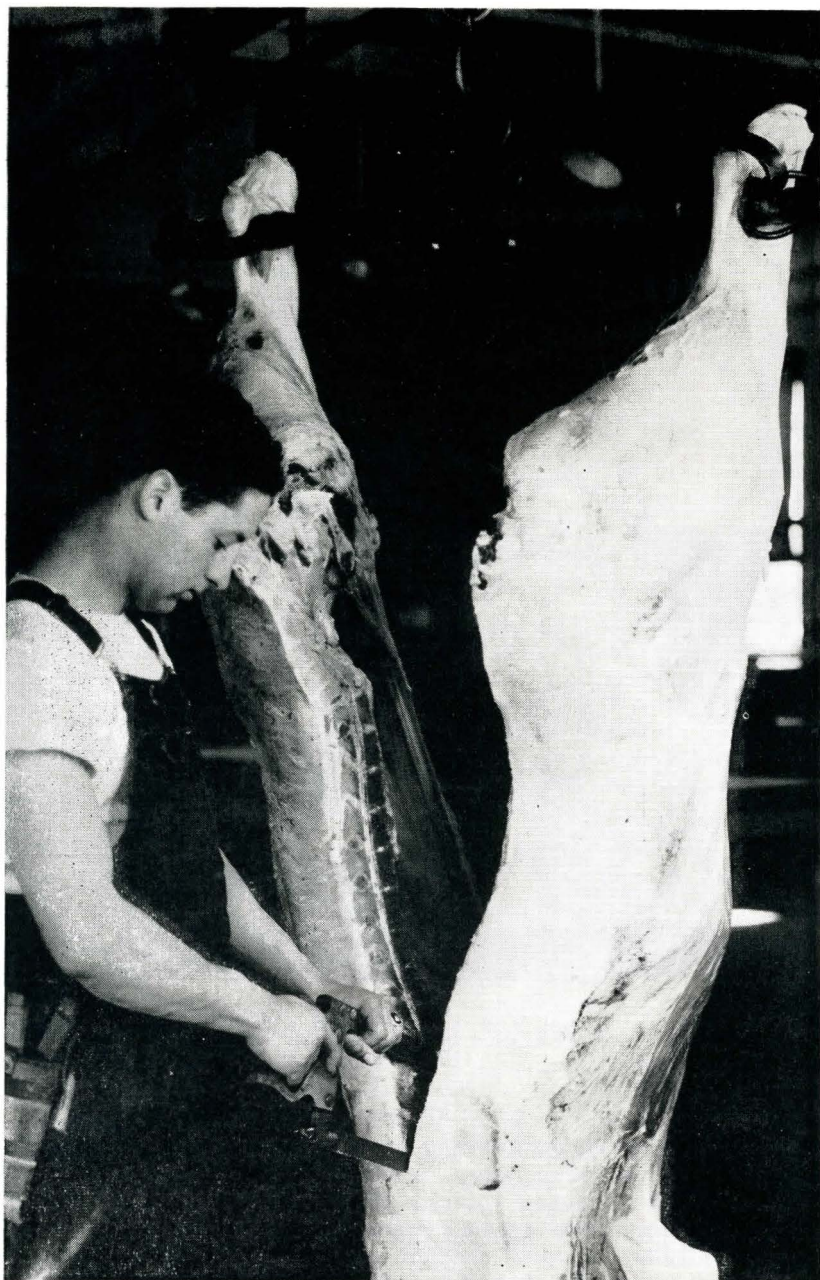
The carcass is hoisted as the dressing proceeds. The hide is dropped down the back. The front shanks are split to the elbow, then a cut made squarely to the brisket. The foreshanks are skinned and the entire hide removed.

#### Care of the Hide

The hide is spread with the flesh side up. The shanks and the head skins are thrown in and the hide folded from front to rear. It should not be allowed to freeze and should be disposed of promptly. Such a hide is known as a "green" (uncured) hide. If the hide cannot be sold at once, the flesh side should be covered with about two gallons of rock salt, after which the hide is rolled up. Usually about six weeks' salting are necessary to cure a hide. Cured hides bring a higher price per pound than green hides because in curing, a considerable shrinkage in weight takes place.

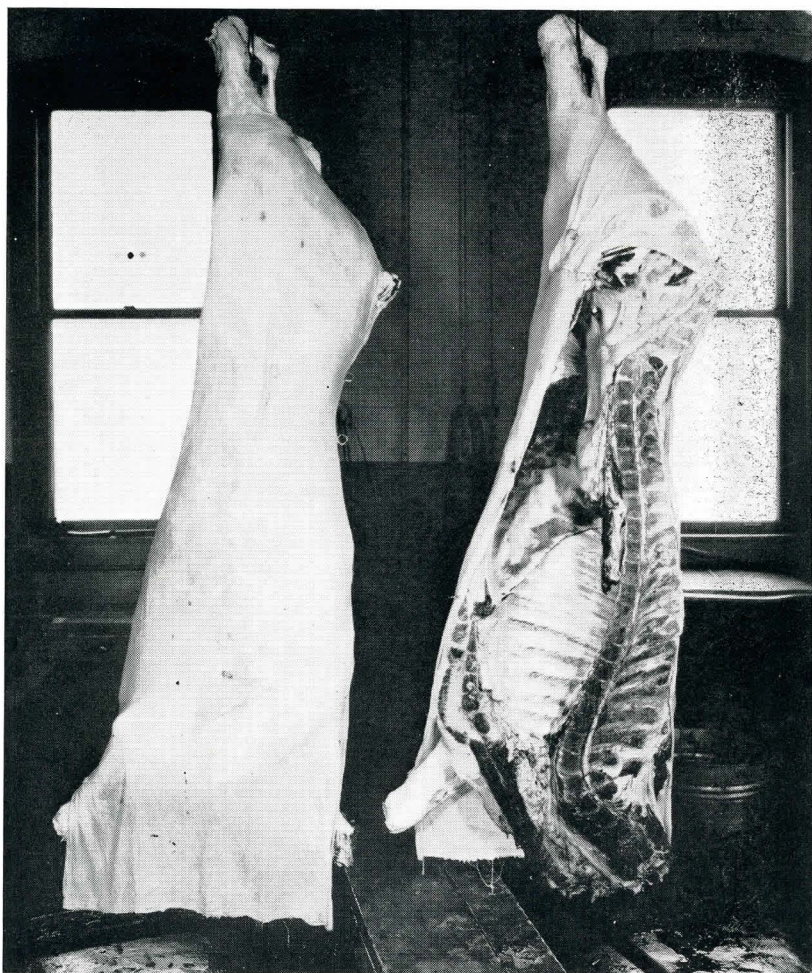
#### Splitting, Washing, Shrouding

A center cut should be made down the front of the backbone, throwing the left kidney and the hanging tender on the left side. The carcass is sawed down the center of the back. In packing plants, the splitting is done below the loin with the cleaver; however, the amateur will find the saw more satisfactory.



The carcass is split down the center of the back.





A clean cloth wrung out in hot water and pinned tightly to the carcass smooths the fat and bleaches it and protects the carcass from dust and dirt during chilling.

The carcass should be thoroughly washed and then hoisted to chill if refrigeration is not at hand. In commercial practice, carcasses are shrouded; that is, tightly covered with muslin wrung out in warm water. This procedure improves the appearance of the carcass, smoothing out and bleaching the fat. On the farm shrouding serves to protect the carcasses from dust. The shrouds are stretched tightly with special shrouding pins, nails or wooden skewers.

### Chilling

The carcass should be chilled as rapidly as possible. The best chilling temperature is just above the freezing point. Heavy cattle and well-finished cattle require most time to chill.

If the temperature is not too cold and the carcasses are heavy and fat, it is sometimes desirable to cut them up, especially through the fleshy parts in order to speed the chilling. If the animal heat is not eliminated rapidly, souring may occur, especially around the large bones of the round. Warm meat should be hung up to promote free circulation of air. It should never be laid on a floor or piled up.

### Dressing Percentage

The dressing yield is the percentage relation of the carcass weight to the live weight. It is computed by dividing the carcass weight by the live weight and multiplying by 100. Dressing percentage is important for it determines dressed beef cost.

The dressing percentage varies from 40 to 65 per cent. It is determined by finish, fill and quality. The fatter the animal, the higher the yield, other factors being equal. Fill has the opposite effect, the greater the fill, the lower the yield. High quality increases yield. Thin hides, fine, short shanks and refined heads mean higher yield since these parts are removed in dressing.

### Shrinkage

In chilling, about two per cent of shrinkage takes place because of the evaporation of moisture from the surface and also on account of a certain amount of drip from the carcass. Shrinkage will fluctuate with the temperature and humidity of the cooler and also the fatness of the carcass. Well-finished cattle naturally shrink less.

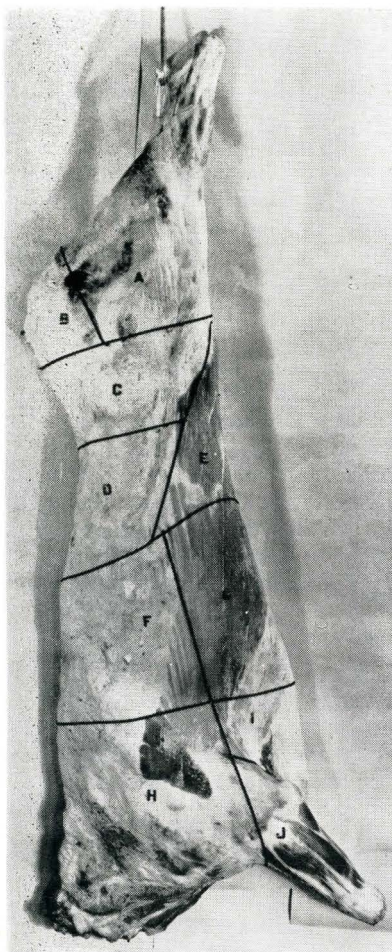
### Beef Cutting

Someone has said that there are three principles of cutting meat; cut thick meat from thin meat; cut tender from the less tender; and always cut across the grain. There is no one best method to cut meat, and every section of the country has a method of its own. The mid-western or Chicago style of cutting is standard over a large portion of the United States, therefore it will be described here. Every family should feel free to modify the method as special interests or conditions may require.

Cutting should not be undertaken until the beef is thoroughly chilled and "set up." If the beef is fairly well covered with fat, it may be improved in tenderness by aging or ripening; that is, by hanging it at 34-36°F. for from ten days to two weeks. On farms where refrigeration is not available, ripening is generally impossible. Meat to be canned need not be ripened. Beef to be frozen should be ripened before freezing.

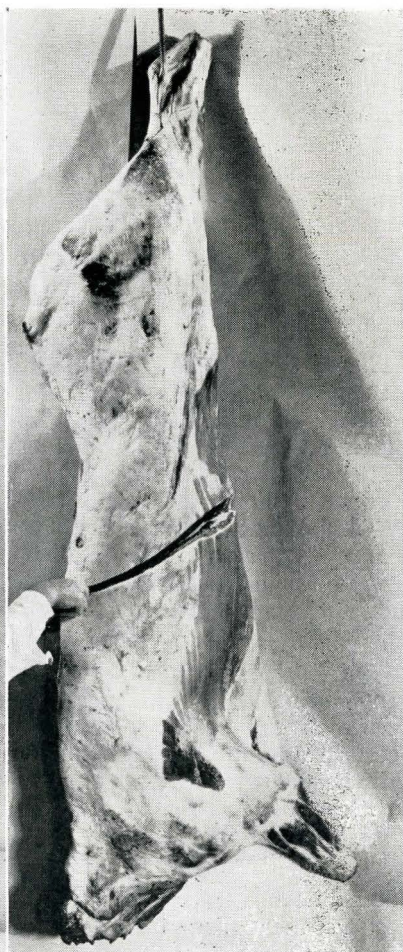
The left side of beef is known as the "open" side and the right side





The wholesale cuts of beef

- |              |             |
|--------------|-------------|
| A—round      | F—rib       |
| B—rump       | G—navel end |
| C—loin end   | H—chuck     |
| D—short loin | I—brisket   |
| E—flank      | J—foreshank |

The forequarter is separated from the hind,  
between the last two ribs.

as the "closed" or "tight" side. The left kidney normally lies under the backbone, the paunch or first stomach being attached to the flank. Consequently, the hand may be run under the left kidney. The right kidney is attached to the flank, therefore the name tight or closed side. The hanging tender, the central muscle of the diaphragm, is left on the left side. The two sides of beef weigh virtually the same, depending of course on the accuracy of the splitting.

### Ribbing Down

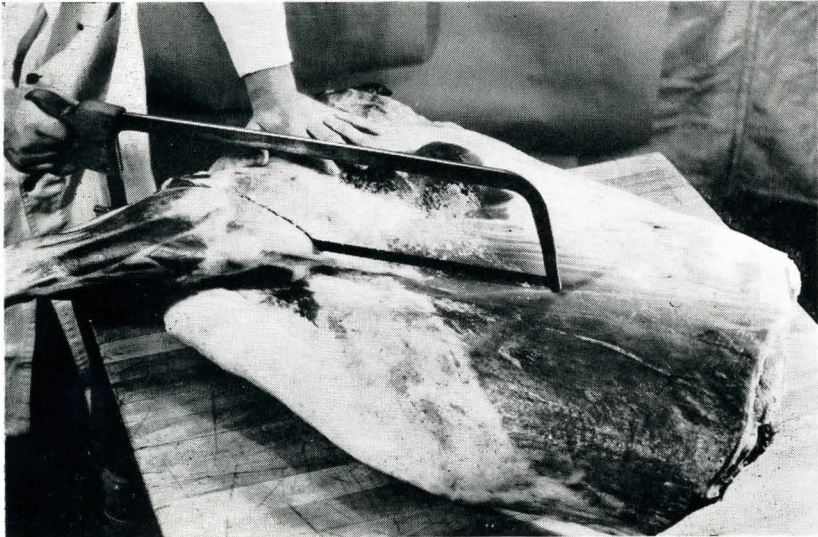
The first step in cutting beef is designated *ribbing down*, a process which divides each side into forequarter and hindquarter. This cut varies somewhat in different communities, but in the middlewest it is customarily made between the twelfth and thirteenth rib. In some cases it may be necessary to rib down cattle before they are chilled, preparatory to transporting or refrigerating them.

Cattle have 13 pairs of ribs, so the common ribbing practice leaves one rib on the hindquarter. This leaves the forequarter and hindquarter approximately equal in weight. With heifers and cows, forequarters and hinds are about 50-50 per cent. With steers, the forequarter usually constitutes 52 per cent of the weight and the hindquarter 48 per cent.

In ribbing, the knife is inserted between the last pair of ribs, and the knife held level. The knife should follow the rib curvature toward the navel. However, four to six inches of the belly wall is left intact to support the forequarter. The knife is then reversed and the cut carried to the backbone which is then sawed. This cut usually severs the backbone seven and one-half vertebra below the break of the back. As the helper supports the forequarter, the remaining flank muscle is cut.

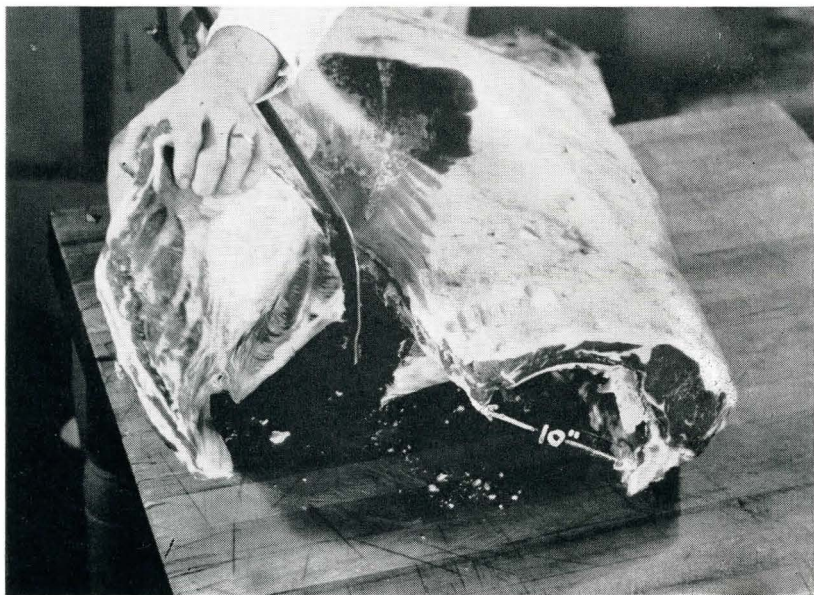
### "Breaking" the Forequarter

The forequarter is placed on the cutting bench bone side down. At the back of the forequarter, ten inches are measured from the backbone to the rib end. On the front shank a mark is made just



The foreshank is sawed off just above the elbow joint.





The navel end and brisket are separated from the rib and chuck.



The chuck is cut from the ribs between the fifth and sixth ribs.

above the elbow joint. A straight-line cut is made between these two points.

The top portion of the forequarter is separated between the fifth and sixth ribs from the front, crowding the fifth rib. The front portion including the neck is known as a chuck and the rear portion, the rib.

The front shank is cut from the plate through the tissue seam. The plate is divided between the fifth and sixth ribs from the front. The front portion is designated as the brisket and the rear portion as the navel end.

### Cutting the Hindquarter

The hindquarter is placed on the cutting block with the bone side up. A mark is made on the inside of the flank about eight inches from the backbone. Starting over the round, the thin three-cornered flank is cut to this point. One rib must be sawed.

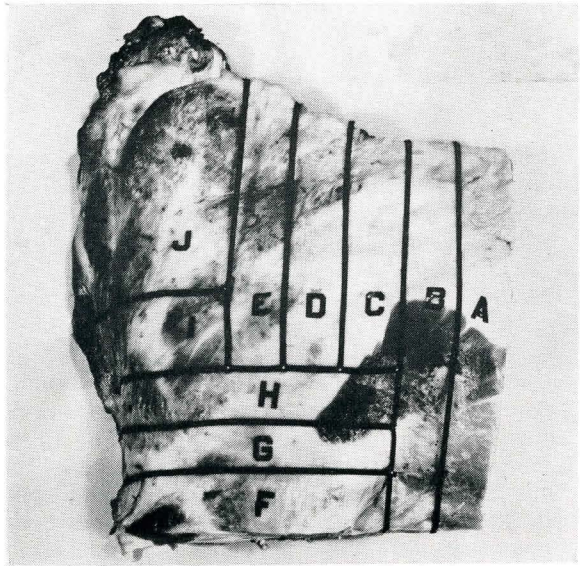
The kidney knob is removed from the loin, leaving some suet in the loin. From the left hindquarter the hanging tender is cut and used for grinding or for stew.

The round is separated from the loin one-half inch in front of the aitch or pelvic bone. At the rear,  $3\frac{1}{2}$  vertebrae are counted back from the break in the backbone.

### Retail Cutting

In cutting meat for sale, the cutter is always faced with the profit angle. The side of beef, in addition to meat, contains bone and suet—both of which are waste to most consumers. The problem for

Method of cutting the chuck—A, B, C, D, E, are chuck rib roasts. F, G, H are cross-arm or round-bone chuck roasts. I is a knuckle, soupbone and J is the neck.





the retailer is to cut it in such a way that every consumer gets his fair share. There is frequently an effort to crowd some of the less desirable cuts in with the more sought-after cuts.

The problem of the farmer who has a carcass of his own to utilize is entirely different. He is not interested in sales or selling price; hence he should see that every particle of meat is utilized most efficiently. For example, in commercial cutting practice, a "tail" of flank meat is left on the steaks from the short loin, a practice which makes it possible to sell more pounds of loin steaks. However, the flank meat is not tender and is not adapted to the quick cooking methods generally used for steak cuts. For home use, then, it is far more practical to cut the steaks "short," using the less tender "tail" pieces for grinding, stewing or braising.

### **The Chuck**

The chuck constitutes 25 per cent of the weight of the side. It is a cut somewhat lacking in tenderness; hence best adapted for braising. Off the back face of the chuck, chuck rib roasts may be cut. The number of roasts which can be cut will vary with the size of the animal and the size of the roasts desired. Usually the fourth and fifth rib (counting from the front) sections are cut up into chuck rib roasts. Across the lower or arm face of the chuck, cross-arm or round-bone chuck roasts are cut, until the large shoulder joint is reached. Then chuck rib roasts again are cut. Some of these roasts are known as "7-bone" roasts for the cross-section of the blade bone looks like the figure 7. When the shoulder joint is reached, it is cut out as a soupbone or it may be boned out for grinding.

The neck portion of the chuck may be cut up into "boiling" or, more properly, simmering pieces. The neck may also be boned out for stew or for grinding or for mincemeat.

### **The Rib**

The rib consists of the meaty back portion from the sixth to the twelfth ribs inclusive. It is relatively tender and is usually used for roasts. The rib represents ten per cent of the side of beef.

Rib roasts may be cut, bone in; they may be folded; or boned and rolled. A standing rib roast usually has a part of the backbone or chine bone sawed off. For best utilization, some of the rib ends are sawed off for braising as short ribs. For the folded rib roast, the chine bone is sawed off and a 1-inch section of the ribs cut out in the center so that the thin part may be folded over and tied.

For the rolled rib roast, all of the bones are removed as is also the yellow neck ligament or back strap. The thin end is rolled around the meaty portion and skewered or tied. The bone usually constitutes about 20 per cent of the weight of the rib although this will fluctuate with the grade of the meat. The higher grades have a lower percentage of bone than the plainer grades.



The thin, triangular flank is cut from the hindquarter.



The kidney and some of the kidney suet are trimmed from the loin.

### **The Foreshank**

The front shank is relatively lean with a high percentage of bone. It is not a tender cut and requires braising, simmering, grinding, or



it may be used for soup stock. It is cut up with a saw or may be boned out.

#### **The Brisket**

The brisket is a cut lacking in tenderness. It may be cut up in sections and braised or simmered. Frequently, it is boned out for corned beef. For corning, any good pork cure may be used. The boneless brisket also may be ground or cut up for stew.

#### **The Navel End**

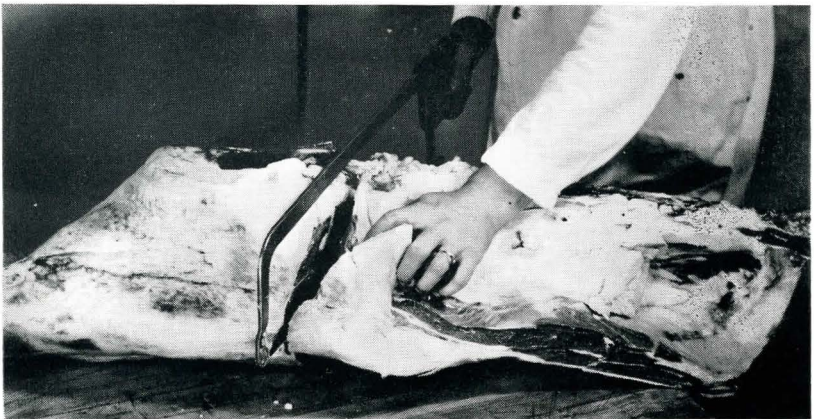
The navel end, being a continuation of the brisket, is adapted to the same preparation methods. It may be cut up into sections as short ribs and used for braising, simmering or stewing. Boned out, it may be used for stew or for grinding.

#### **The Flank**

On the inside of the flank in the upper corner is a muscle about the size of a large hand, known as the flank steak. It is covered with a layer of connective tissue which must be stripped off. Then the flank steak is stripped out and cut off. The cod-fat or udder is trimmed off and the flank used either for stew or grinding. The only bone in the flank is the lower portion of the last rib. The flank steak is a flat, coarse-grained cut with the fibres running lengthwise. It is not tender, hence requires prolonged, moist-heat cookery. It is frequently scored or cubed and may be split and stuffed.

#### **The Loin**

The loin is one of the tender cuts and is conventionally used for steaks. The loin is generally separated at the hipbone or pinbone as the butcher calls it, into the short loin or front portion and the



The round and loin are separated one-half inch to an inch in front of the aitchbone.

loin end or thick, rear portion. If the entire cut is to be used for steaks, there is no advantage in separating the loin into two parts. It is easier to cut steaks from one large cut than from two small ones and there is less shrinkage.

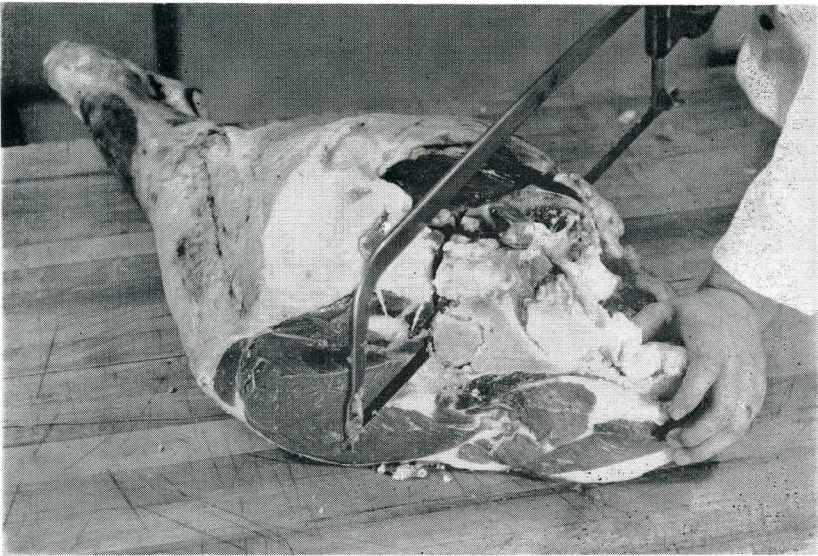
Steaks should be cut across the grain. Steaks are larger when they are cut at a slight angle. However, the steaks should be uniform in thickness. The thickness of the steak will depend upon the preference of the user and the cooking method to be used. If choice-quality loin steaks are to be broiled, they should be at least three-quarters of an inch thick.

#### **Club Steaks**

Club steaks are cut from the front third of the short loin. Some of these will have a section of the last rib. They are made up mostly of the large back muscle, and have little or none of the tenderloin muscle which lies underneath the backbone.

#### **T-Bone Steaks**

T-Bone steaks are obtained from the middle third of the short loin. They take their name from the cross section of the lumbar vertebrae which resembles a letter T. Not all steaks in this section will have this bone, for some may be cut between the bones. T-bone steaks have a considerable amount of the tenderloin muscle and also some kidney fat.



The rump is removed from the round just below the floor of the aitchbone.



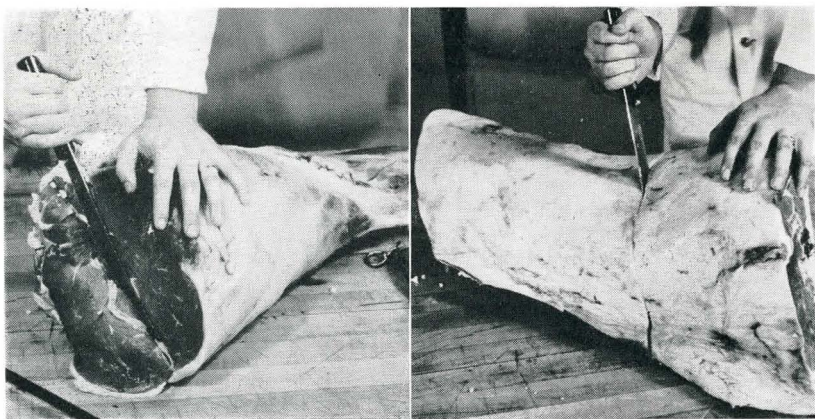
### Porterhouse Steaks

Porterhouse steaks are cut from the rear third of the short loin. Their bony structure is identical to that of the T-bone. However, porterhouse steaks contain larger portions of the tenderloin.

### Sirloin Steaks

Sirloin steaks vary greatly in bony structure. The first steak from the front of the loin end is the pinbone sirloin, so named because it contains the "pinbone" or hipbone. Then a rather broad expanse of hipbone is noted in the next few steaks which gives these steaks the name flat-bone sirloins. Then there will be a number of double-bone sirloin steaks, so called because of the presence of a portion of the pelvic bone and the backbone. By this time, the shaft of the pelvic bone will have been reached. The shaft is round which gives to these steaks their name, round-bone sirloins. In the last steak or two, the pelvic bone becomes triangular from which these steaks are sometimes called wedge-bone sirloin steaks.

It is impossible to lay down any rules as to the number of the various steaks, this depending on the size of the loin and the thickness of the steaks.



Round steaks are cut across the grain.

The short loin is separated from the loin end at the hipbone or pinbone. For ease in cutting steaks these two cuts are usually left together.

### The Round

The rump is cut off the round along the under side of the aitchbone. In cutting, an outward flare is made to give as much "face" as possible to the steak. The rump is essentially a roast cut. The tail bone is sometimes cut off as is also the large hip joint, these bones frequently being used for soup stock. In some instances the rump is boned and rolled. Sometimes the rump is corned.

The round steaks are cut across the grain until the large knee joint is reached. At this point, the three-cornered pot roast to the rear of the shank bone is trimmed out. It is variously known as the heel of the round, point boil, Pike's Peak, and horseshoe pot roast. It is not a tender cut, but prepared by braising or simmering, it becomes both tender and palatable.

The hind shank, like the foreshank, may be used for soup stock or it may be boned for grinding.

### Canning

Canning is a common method of preserving surplus meat. Canned meat may be stored without refrigeration and is readily available for emergency meals. As a general rule, the less tender cuts should be canned. Meat should be canned as soon as possible after it is chilled. Since canning requires thorough cooking for proper sterilization, it is not necessary to age or ripen meat before canning it. In fact, the higher bacterial count of ripened meat makes it less desirable for canning.

To save space, it is desirable to bone out meat before canning. The bones may be used for broth to fill the jars. The cutting up of canning meat into small pieces is a good practice for it hastens sterilization. Heat penetrates more quickly into a container packed with small pieces surrounded by liquid than into a container holding a smaller number of larger pieces.

Detailed directions for canning may be found in Nebraska Extension Circular CC 65 entitled Canning Meat and Poultry.

### Corning

Corning consists of curing meat with salt. Corned beef is generally made from fatty cuts such as boned briskets, plates and rumps, although any cut may be corned.

For 50 pounds of meat, 4 pounds of salt, 1 pound of sugar and 1 ounce of saltpeter are dissolved in  $2\frac{1}{2}$  gallons of water. The pickle is boiled to sterilize it, then cooled. The cuts of meat are placed in a scalded stone jar or keg and the cooled brine poured over them. The cuts should be weighted down to keep them submerged. The curing should be done in a cool place, preferably at  $36^{\circ}$ – $40^{\circ}$ F. About two days per pound weight of piece produces a satisfactory cure. The customary procedure is to leave the corned beef immersed in the pickle until it is used. The brine should be watched for ropyness which is an indication of spoilage. Should the brine become ropy or stringy, the cuts should be scrubbed, the container scalded and a fresh brine made. After the meat has been corned, it may be canned or it may be frozen. Tongues also are frequently cured by corning. In case of warm weather, the curing may be hastened by "pumping;" that is, forcing brine into the cuts by means of a special instrument.

The dry cure, made up of salt, sugar and saltpeter, may be rubbed directly on the cuts. The dry cure is a little faster, although it usually



does not produce so uniform a cure as the brine method. More details on curing may be found in Nebraska Extension Circular No. 247.

### Drying

Dried beef is usually made from the round, although any lean cut may be used. After the rump is cut off, the round is separated into three muscles, the inside, the outside, and the knuckle. These muscles are stripped of their fat and connective tissue and are cured as for corned beef except that a little more time is given in the brine to insure the thorough penetration. After draining, the cuts are given a light smoke and then are hung in a warm, well-ventilated place. They are across the grain in thin slices.

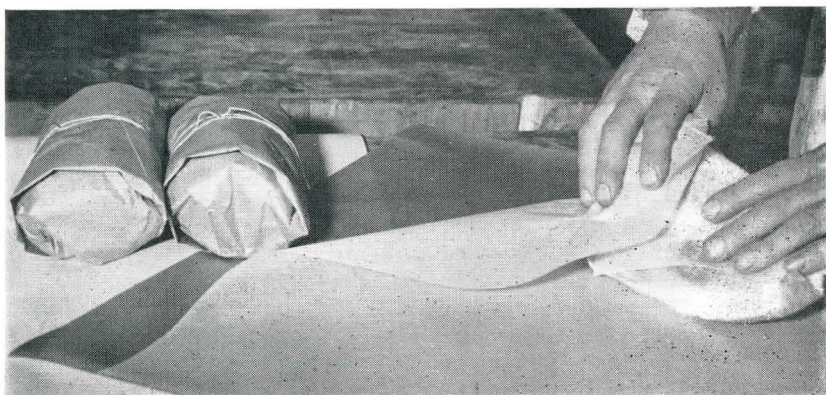
### Freezing

Freezing is a more recent method of meat preservation. While it does call for a cash outlay for storage expense and involves transportation to and from the locker, it has the advantage of saving time for the homemaker and of providing meat which may be prepared in as wide a variety of ways as fresh meat.

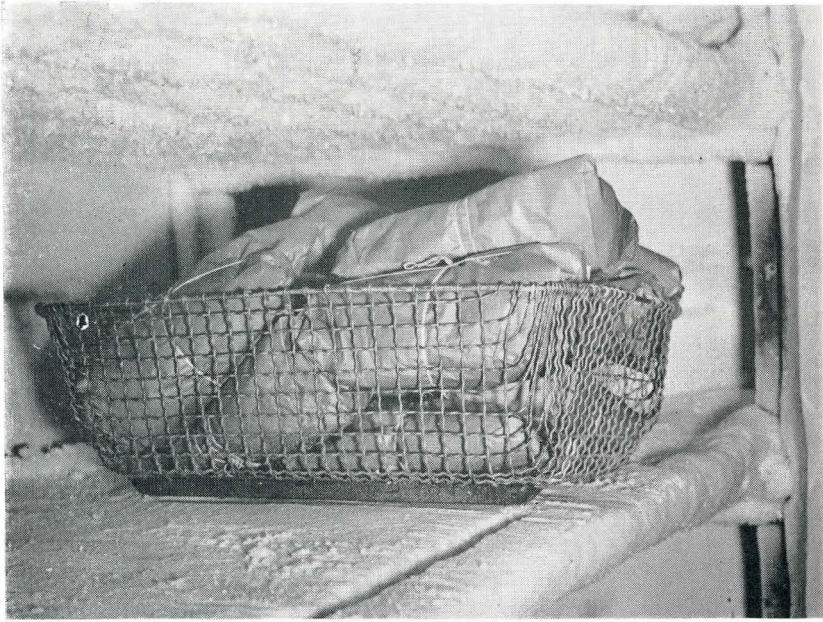
If facilities are available, beef should be aged or ripened before freezing. Since cutting is impossible after meat is frozen, cuts should be prepared for the pan before freezing. Surplus bone and fat should be trimmed off. Projecting bones take up valuable space and may perforate wrappings. Much valuable space can be saved by boning out cuts for stew and ground beef.

Meat to be frozen must be wrapped tightly in moisture- and vapor-proof wrappings to prevent drying out or "freezer burn." There are special wrappings available for this purpose.

The size of the package will depend upon the size of the family, the frequency with which meat is withdrawn from the locker, and



Tough, waxed paper is used to wrap meat. In this picture, note how the meat is being wrapped tightly with the inner waxed sheet of a special double freezer locker paper. The outer brown sheet is then wrapped around the package and tied. Name of the cut of meat and date can be written on this outside cover.



Meat, maintains its quality when frozen rapidly in a quick freeze room at temperatures of  $10^{\circ}$  to  $20^{\circ}$  below zero, then stored at  $0^{\circ}$ – $10^{\circ}$ F.

also on the storage facilities on the farm; i.e., whether there is refrigeration available or not. Where several pieces of meat are wrapped in the same package, a piece of waxed paper should be placed between them so that the cuts may be separated without defrosting.

After wrapping, the packages should be securely tied and labelled. The packaged meat should be taken to the quick freezer *at once*. In transporting the packaged meat to the freezer, the packages should be handled in such a way that the wrappings are not punctured or chafed.

Meat should be placed in a sharp freezer and frozen quickly. This preserves the quality of the meat and reduces the shrinkage. After the meat is quick frozen, it may be packed in the storage locker.

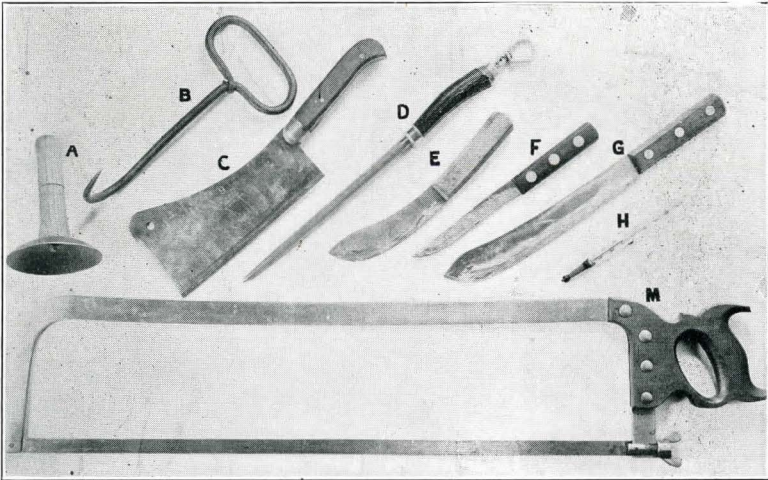
Before using, meat may be defrosted quickly or slowly. Some defrost at room temperatures and some in a refrigerator. It should be remembered that meat once defrosted is very perishable and should be cooked promptly. Where the frozen meat is cooked without defrosting, additional preparation time must be allowed.

### Beef Suet

Beef suet, if sweet and clean, may be cut up and rendered like lard to  $250^{\circ}$ F. The cracklings may be pressed and the rendered fat placed in containers. Beef suet may be used for culinary purposes like lard or oleomargarine. A very satisfactory method of using beef suet is



to mix 10 per cent with lard. This produces a cooking fat which is superior to lard, especially for summer use where refrigeration is not available.



Good tools make the job easier. A—candlestick or bell scraper, B—hook, C—cleaver, D—Steel, E—skinning knife, F—boning knife, G—steak knife, H—dairy thermometer, M—saw.

## RULES FOR SAFETY

1. **Check All Hoisting Equipment and Its Supports Carefully**  
Be sure that the supports are adequate for the loads contemplated.
2. **Scalding Water Is a Real Hazard**  
Every precaution should be taken with it. Hot grease is also capable of inflicting severe burns.
3. **Keep Handle of Knife Free from Grease**  
A dry handle assures a good grip and helps prevent the hand from slipping onto the sharp blade.
4. **Hold Knife Firmly**  
A firm, solid grip helps prevent the hand from slipping onto the blade.
5. **Do Not Grab for a Falling Knife**  
You might miss the handle and grab the blade. The best practice is to step out of the way so the blade point will not hit your legs or feet.
6. **Never Lay a Piece of Meat on a Knife**  
You may forget the knife is there when you pick up the piece of meat.
7. **Avoid Carrying a Knife When Both Hands Are Needed to Carry Meat or Heavy Packages**  
There is always the danger of cutting yourself or someone else.
8. **Never Throw Knives Together in a Box or Drawer**  
This practice dulls the blades; there is also the chance of getting cut when picking up the knives.
9. **Do Not Reach Into Soapy Water for a Sharp Knife**  
Soapy water hides the knife and you may grasp the cutting edge.
10. **Be Careful When Using a Cleaver**  
The chopping action is difficult to control. Keep the left hand as far as possible from the path of the cleaver.
11. **Do Not "Crowd" Your Working Space**  
A crowded working space reduces efficiency and is likely to cause accidents.
12. **Let the Saw Do the Work**  
When you force the saw it may "jump" from the bone to your hand.
13. **Use a Stomper When Feeding Meat Into a Grinder**  
Meat grinders account for many missing fingers. Be safe. Use a metal or wooden stomper.
14. **Keep Floor Clean**  
Fat and meat trimmings are as dangerous to slip on as a banana peel.
15. **Treat Bone Scratches and Knife Cuts Immediately**  
Even a minor bone scratch can become infected and cause a bad case of blood poisoning. Do not neglect bone scratches and knife cuts.