

*Math  
problems:*

*developed by  
a saddlemaker  
but useful  
to all*

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# Measuring and Selling Price

rap

Throatlatch

Cheek pieces

Browband

Noseband

Short Cheek

Long cheek

Reins

Layer stock

Loop stock

Layer stock

## for cutting straps

Written & illustrated by  
**Verlane Desgrange**  
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# MEASURING AND SELLING PRICE

## For cutting straps

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Many times a saddlemaker must decide how much to charge for a strap cut from a piece of leather or side of leather. Since a side of leather is an irregular shape, at first glance it may be difficult to decide where to begin. This method shows how to organize this odd shape and make money from your investment.

Follow these steps and always remember: never cut any leather until you have done all the computations first and are absolutely certain of your computations.

1. Lay side of leather on flat surface. Inspect both flesh and grain sides for flaws, butcher cuts, and holes. Make note of where the flesh side flaws and cuts are and mark lightly on grain side with modeling tool or pencil. Make sure you understand the parts of a side of leather (Diagram #1)
2. Have invoice from supplier on workbench and compare the square footage listed with actual footage received. Leather is always marked with a whole number and a smaller number following, such as 22<sup>3</sup> indicating the number of square feet are 22 and three-quarter feet. Usually the invoice matches the item shipped.
3. Be sure to note: the total price including shipping at the bottom of the invoice is the total amount you've paid for the leather. This will be the cost you will use in # 8 & #9 below to calculate your selling price.
4. Lay a long 9-foot straightedge along the top edge to "square up" the side of leather. Be sure to leave as little waste on the part you plan to cut off, while still cutting off any clamp marks, holes, or nicks. (Diagram #2)
5. Do not mark anything yet. However, measure with a measuring tape the distance from the line you plan to cut off toward the belly portion of the side. This distance usually is about 20-22 inches depending on the depth of the side from top to bottom (Diagram #3). Determine where the last cut for straps near the belly will be by the softness or how much the leather "breaks over". On a younger animal with a smaller hide, the break over point may be only 18" from the top line.
6. Write on the invoice what that number is.
7. To find out what YOUR cost is per strap 1" wide x full length of side, divide the depth of hide into the total cost. This will vary somewhat depending on the original depth. (Diagram #3 and #4)
8. Let's assume the cost for the side with the shipping included is \$150.00. Thus  $\$150.00 \div 20" = \$7.50$  per inch width is your actual cost out of

pocket for every 1" width strap you cut from this side in the quality zone of leather (see diagram #1 and # 2 again).

**Let's step aside and learn about calculating prices before proceeding**

To calculate your selling price, you need to sell the leather at a 40% profit margin. There is a difference between margin and mark-up that you need to be aware of.

**MARGIN IS BASED ON THE SELLING PRICE**

**MARK-UP IS BASED ON THE WHOLESALE PRICE**

Since the wholesale price is the smaller amount, you must "mark-up" an item more than 40% to get the true selling price. This can be illustrated by this example: If you are selling an item for \$10 and you are working on a 40% margin, to find your actual cost when only the selling price is known, subtract 40% of the selling price from \$10.00. Thus  $\$10.00 - (40\% \text{ of } \$10.00) = \$6.00$ .

To arrive at the selling price based on the wholesale cost (your cost), you need to mark-up the item 67% of the wholesale cost. Again:  $\$6.00 + (67\% \text{ of } \$6.00) = \$10.00$ .

If you try to arrive at the selling price by adding only 40% to your cost, you'll fall short of a profit that allows you to stay in business. Let's do the math again this time and you'll see why you're losing profits:  $\$6.00 + (40\% \text{ of } \$6.00) = \$8.90$ . You're literally being robbed of \$1.10, which is approximately 10%. You wouldn't *pay* a customer 10% to do business with you, but with faulty math reasoning that's exactly what you are doing.

You need a 40% margin (translate: 67% mark-up) to stay in business according to the Small Business Association (SBA). On some items you'll need even more to remain profitable, but this is a general guideline for a business.

Now, back to our original problem: what should you sell a 1" wide strap for when you've paid \$7.50 per inch?

9. Do the math this time using actual numbers:  
 $\$7.50 + (67\% \text{ of } \$7.50) = \$12.52$ . To make the number a bit more in line with pricing ease, call your selling price \$12.50 for a 1" wide strap that runs the length of the side of leather.
10. Let's do another problem based on this concept: what should the selling price be for a strap that is only 5/8" wide? Now in a more condensed form, let's run through the math again:
  - Your cost per inch: \$7.50 per inch in width
  - $5/8" = .625"$  as a decimal (for simplicity on a calculator)

- **Your cost for a 5/8" strap = \$4.68; stated mathematically it is (.625 x \$7.50 = \$4.68). For ease of handling, let's round off your cost to \$4.70**
- **Mark-up \$4.70 by 67% for your profit.  
Thus \$4.70 + (67% of \$4.70) = \$7.84 is the actual selling price.**
- **For ease of handling, round off selling price to \$7.85**

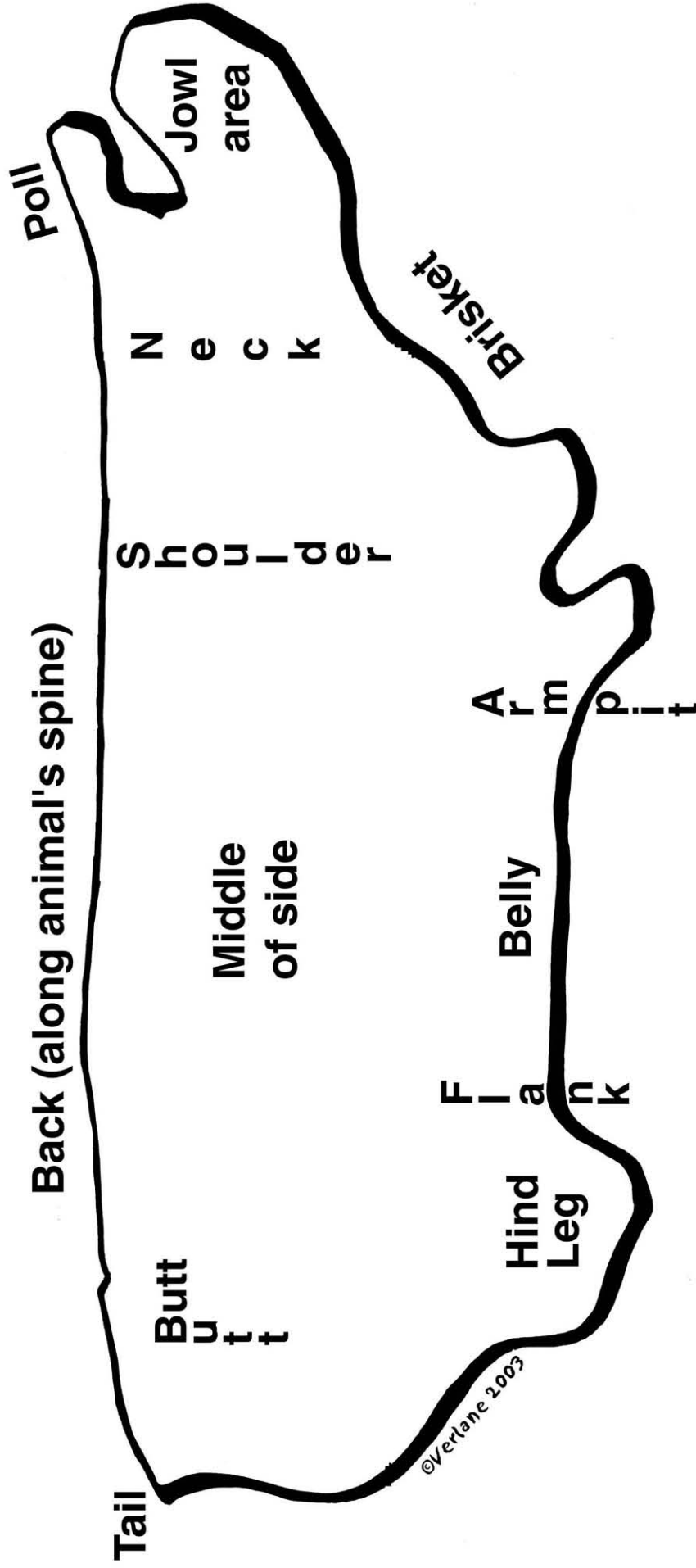
**Using this method, you'll make the right amount of money selling this side of leather if you sell 20, 1 inch wide straps and still have the belly left over for small items. If you took the original cost of the leather at \$150.00 and marked up the entire side 67%, you'd arrive at the selling price of \$250.00 for the whole thing. By cutting straps, you get a greater profitability from a given space on the side (the prime area, diagram #4) and still have a bit left over for small projects. Thus strap work is usually more profitable and efficient than cutting large irregular pieces.**

**AFTER DOING ALL OF THE CALCULATIONS AND DECIDING HOW TO BEST USE YOUR PIECE OF LEATHER, YOU MAY CUT THE FIRST STRAIGHT LINE ACROSS THE TOP FOR STRAP CUTTING PURPOSES. (Diagram #4)**

1.

# Side of cowhide

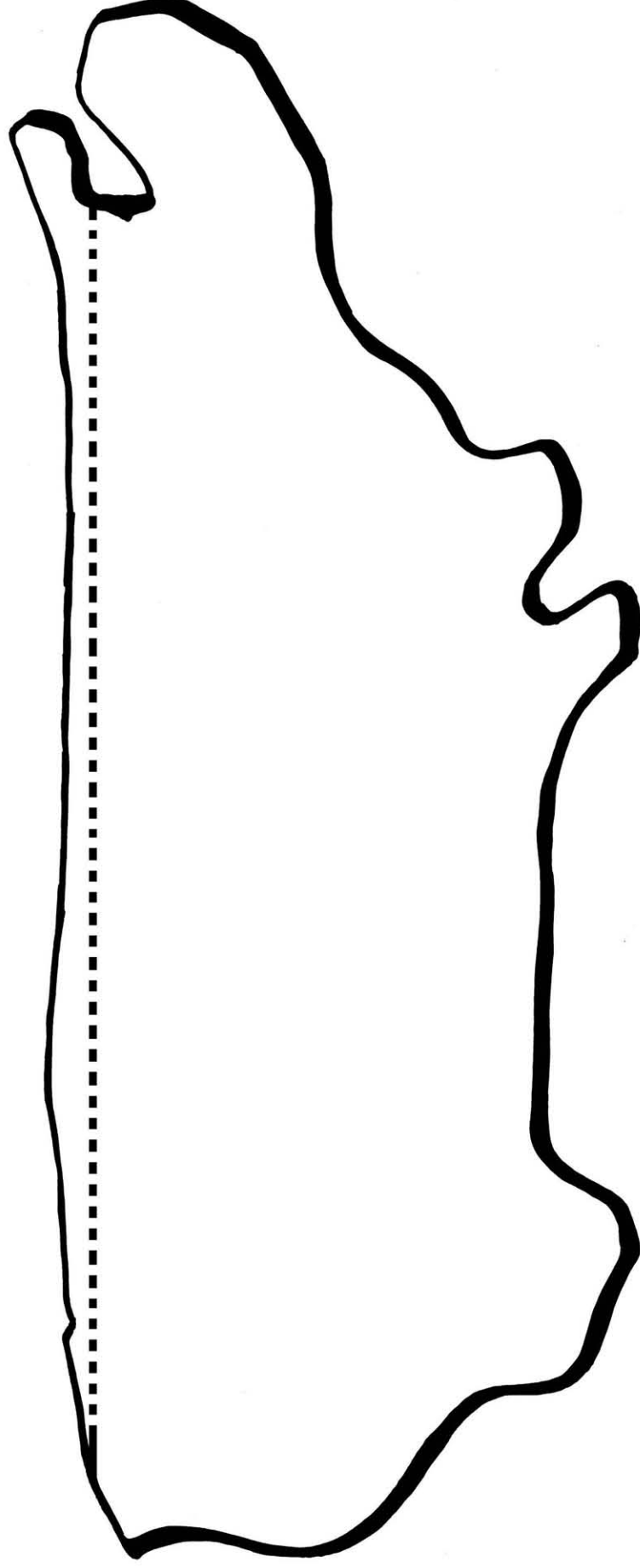
(right handed side shown)



**REMEMBER**, each area of the side has different working properties. Leather is least likely to stretch when cut lengthwise and more likely to stretch when cut crosswise to the length of the side. Each area of the side has varying degrees of firmness or stretchiness. Most areas have a use in leatherworking but assume about 11%-17% of a side will be scrap.

# 2.

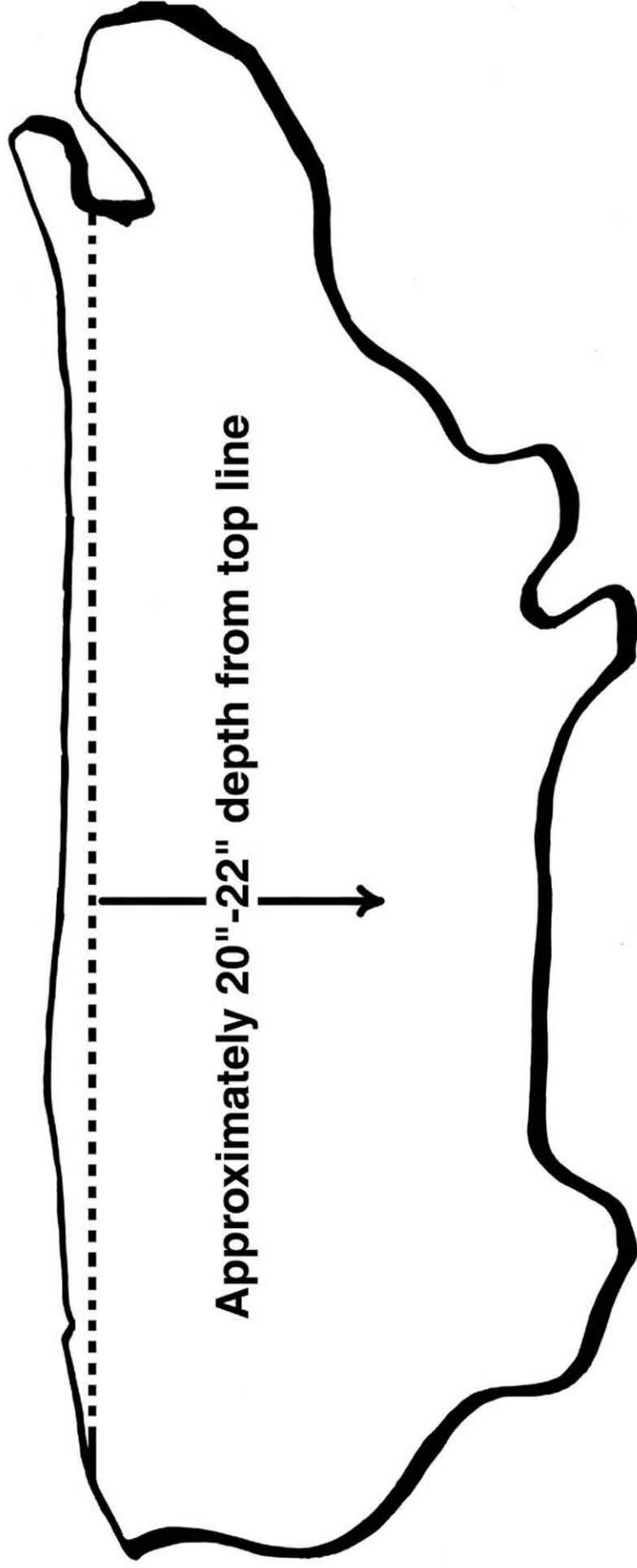
## **Squaring up a side** in preparation for cutting straps



Mark a line along the back (top) that most closely approximates the shape of the side in a straight line. The leather you cut off should eliminate any nicks or clamp marks from the tanning process. Ideally the less you cut off from the top, the better cutting economy you'll have. There are times when you may have to bend your top line just a bit so as not to waste as much leather. Bend only slightly if you have to do it this way. Cut this top line as accurately as possible, for this is the beginning of all the straps you'll cut. Do not undercut or put a wavy line along the top, as accurate strap cutting will be almost impossible. Re-do the top cut again if you make a mistake. Save the leather you cut from the top: it is usually the best part of the side. Many times you can make a complete bridle from this premium leather.

**3.**

## **Strap cutting 1**



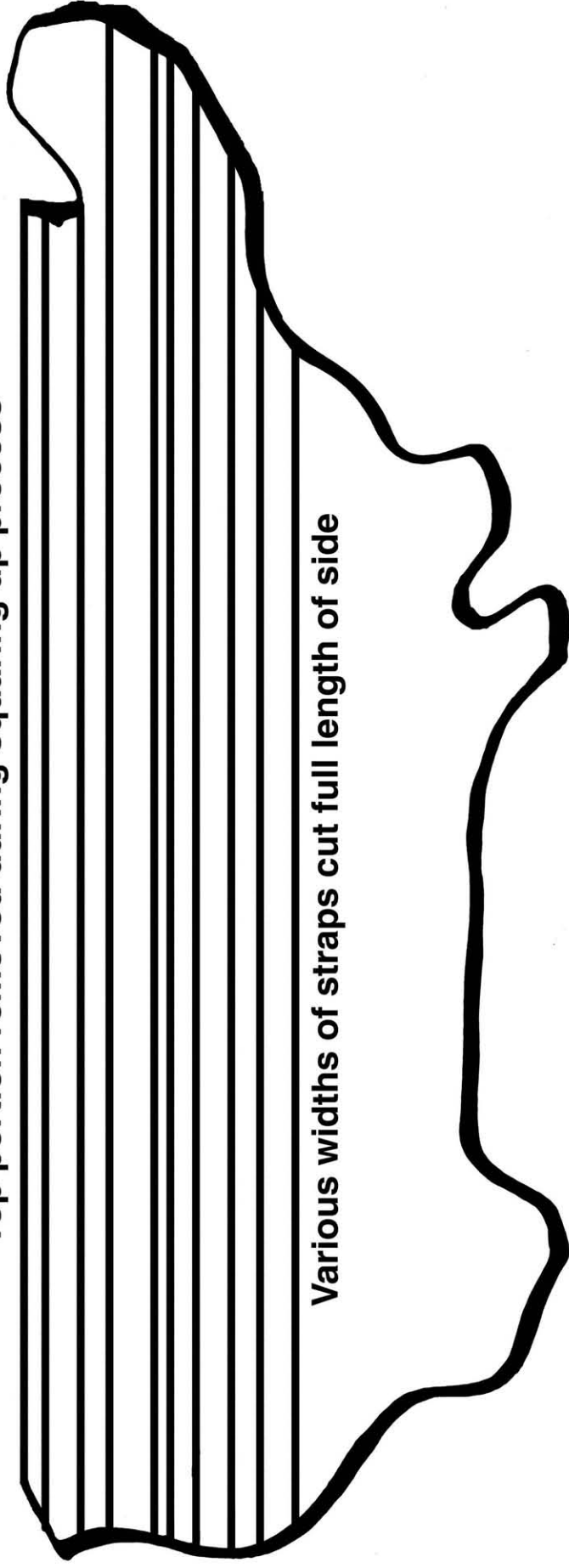
**With most sides of leather, you'll get about 20"-22" of good strap cutting along the length of the side. On some you may only get 18" of decent straps while on an very large deep side that may extend to 24". Do not cut too close to the belly area, for the leather there is too stretchy and flabby to be of use for straps. Use only premium leather for straps as straps require a high tensile strength.**



# 4.

## Strap cutting 2

Top portion removed during squaring up process



Various widths of straps cut full length of side

Cut straps full length on the side of leather, whether or not you need the full 7'-8' length. Take the part from the strap you cut that suits your project and roll up the remainder for later use. **NEVER** cut just a small segment from this top line, for in short order you'll have a jagged edge that is impossible to cut any length from. Maintain the straightness of the top line all the way down to your last strap. Notice that a part of the jowl was not cut into straps. The belly also remains as a solid piece of leather. Save large parts like those for projects that require that type of leather. Areas that are unuseable for projects many times are a good source of practice pieces.