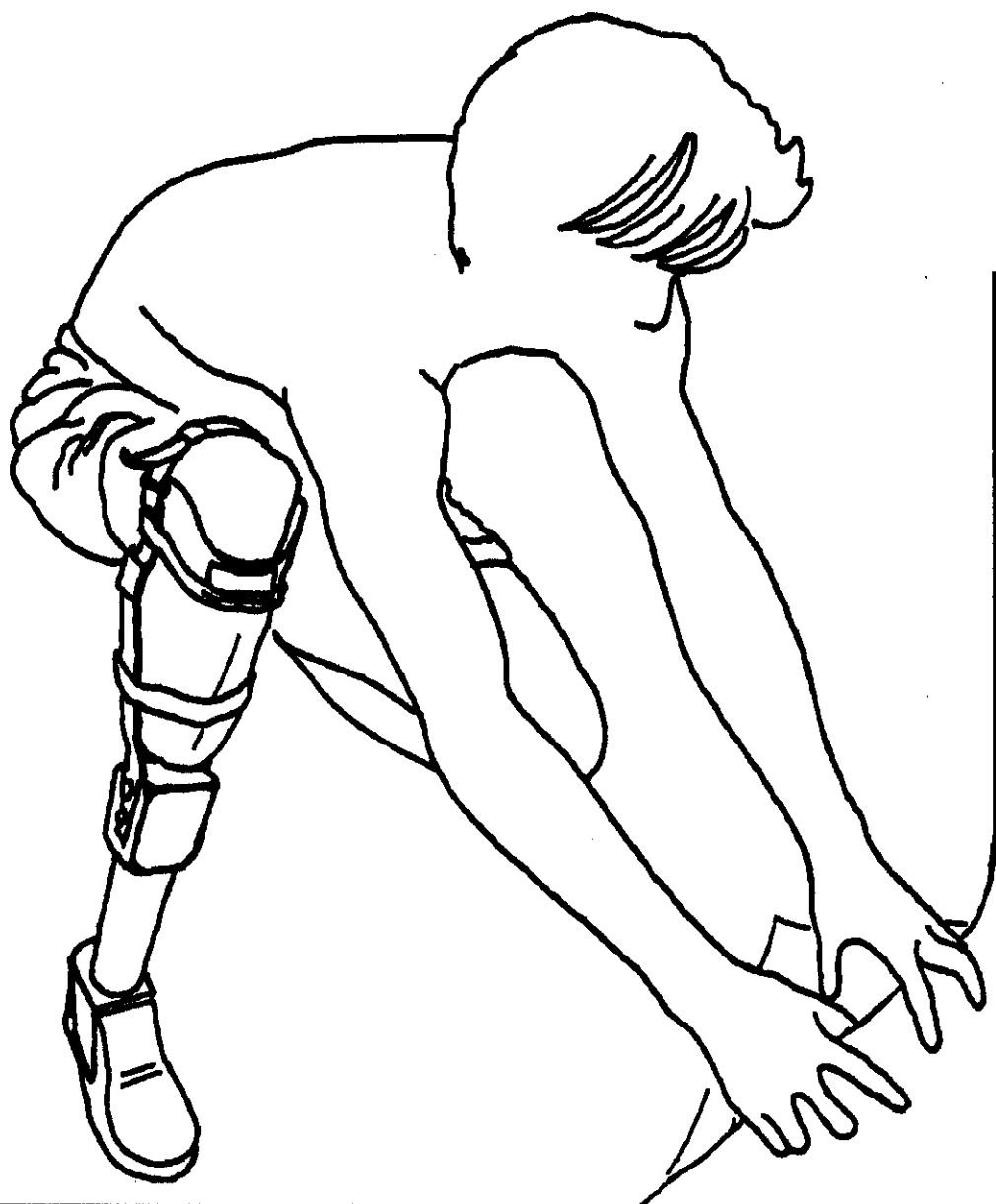
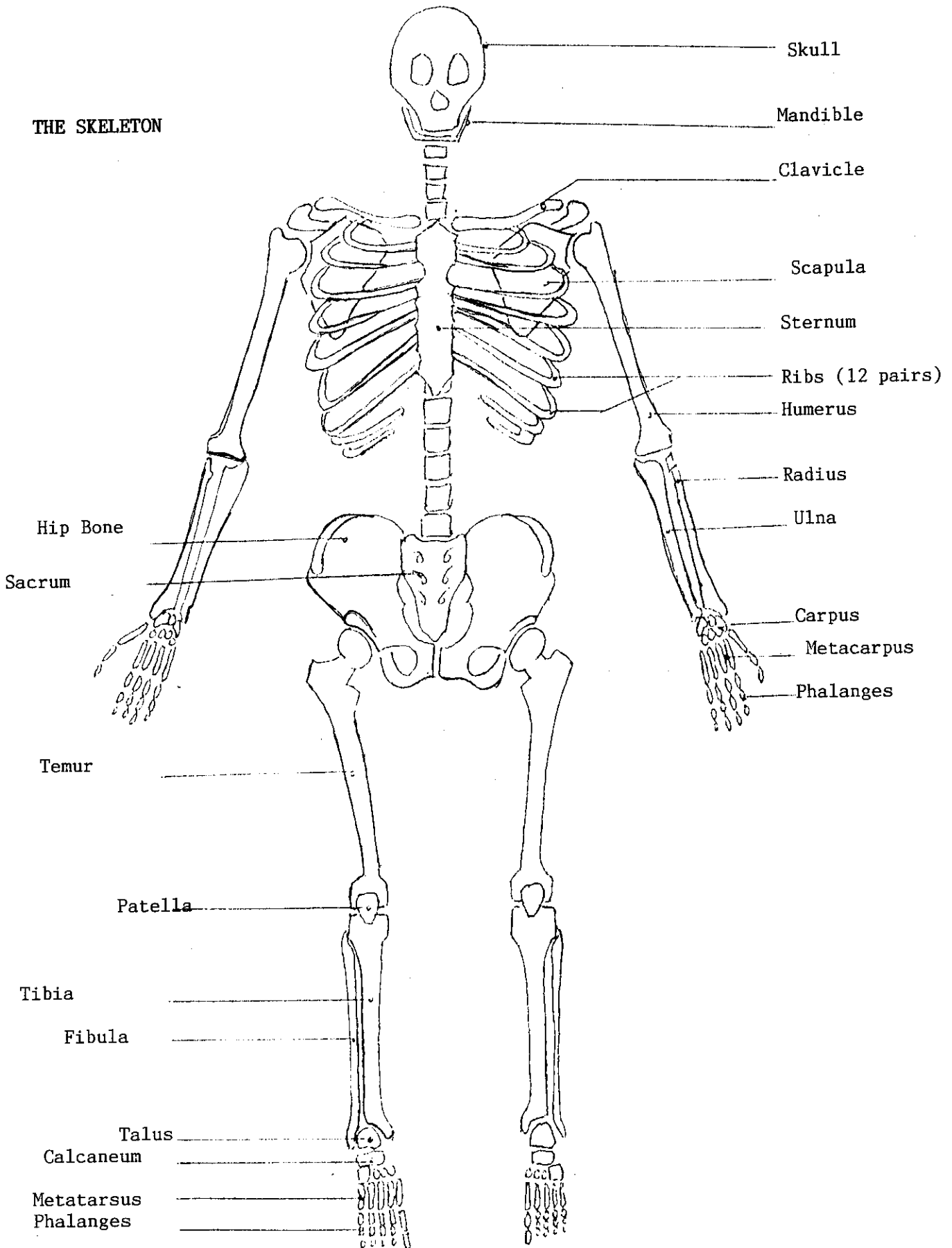


the tibial prosthesis



THE SKELETON



(2)

I The BK Prothesis

Table of contents:

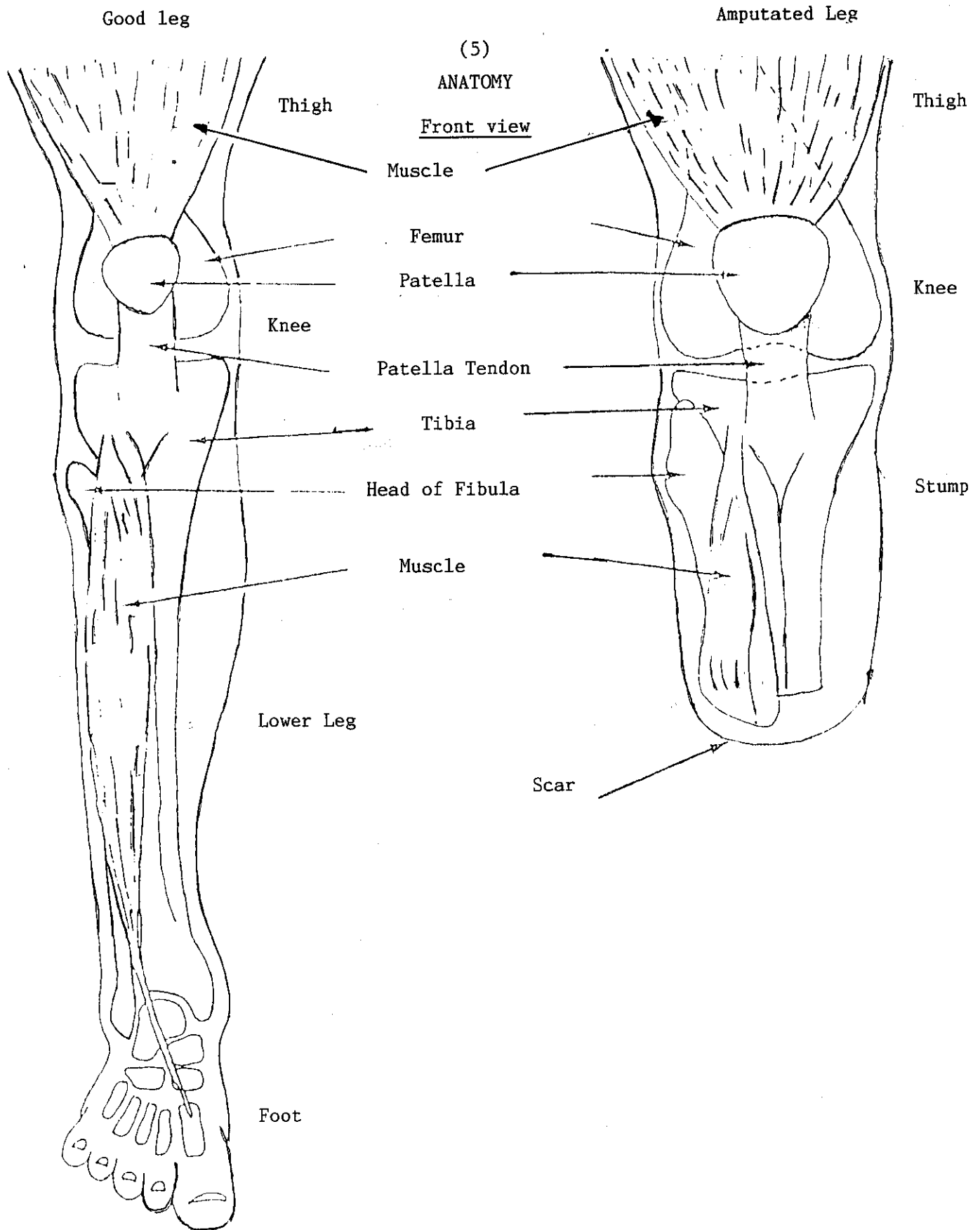
Chapter 1	Anatomy
Chapter 2	The Negative
Chapter 3	The Positive
Chapter 4	The Leather (Definite Prosthesis)
Chapter 5	The Plan and it's Vertical Bars
Chapter 6	The Alignment
Chapter 7	The encircling bars (embrasses)
Chapter 8	The Foot
Chapter 9	The Belt and the Finishing Touches
Chapter 10	Some Frequent Mistakes

(4)

Chapter 1

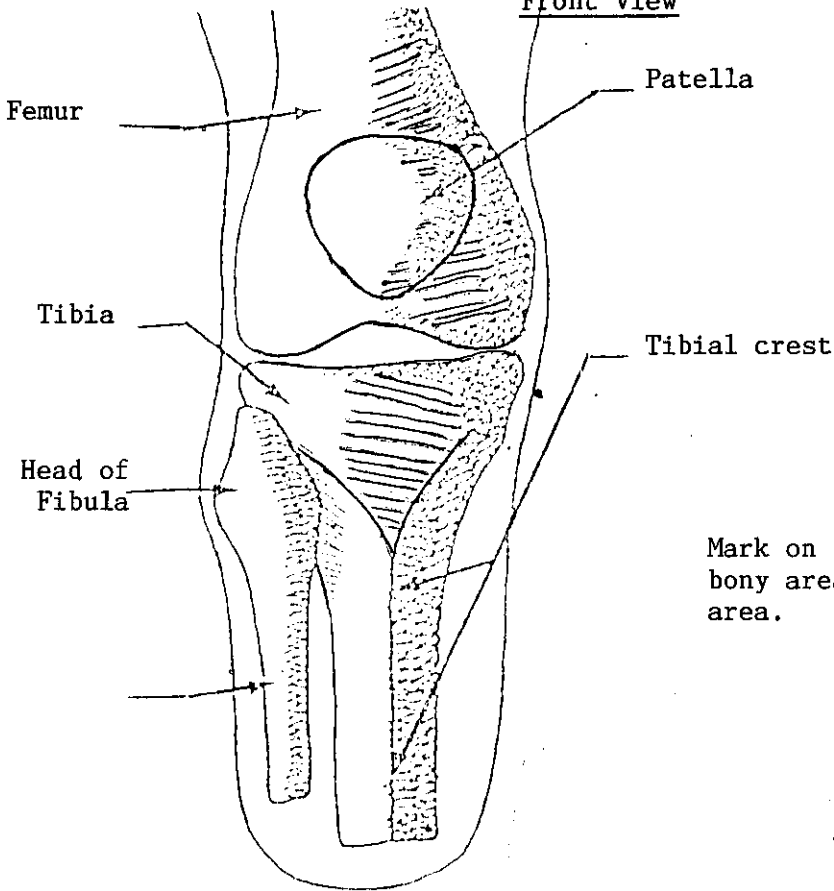
ANATOMY:

- Front View
- Side View
- Posterior View
- The muscles and their functions



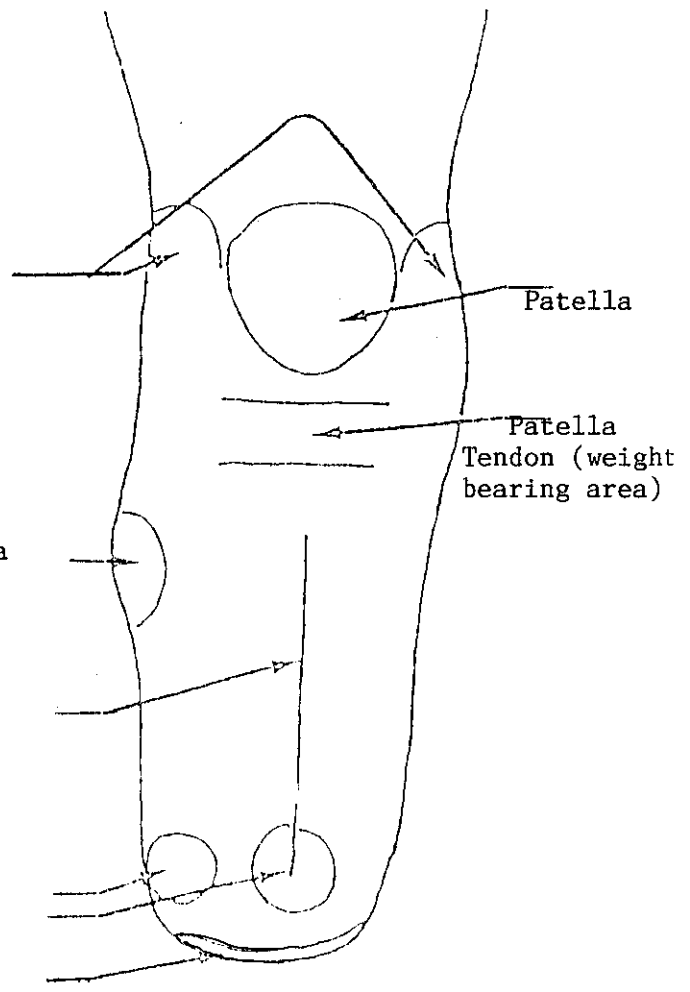
(6)

Front view



Mark on the stump the painful, sensitive and bony areas as well as the weight bearing area.

Femoral condyles

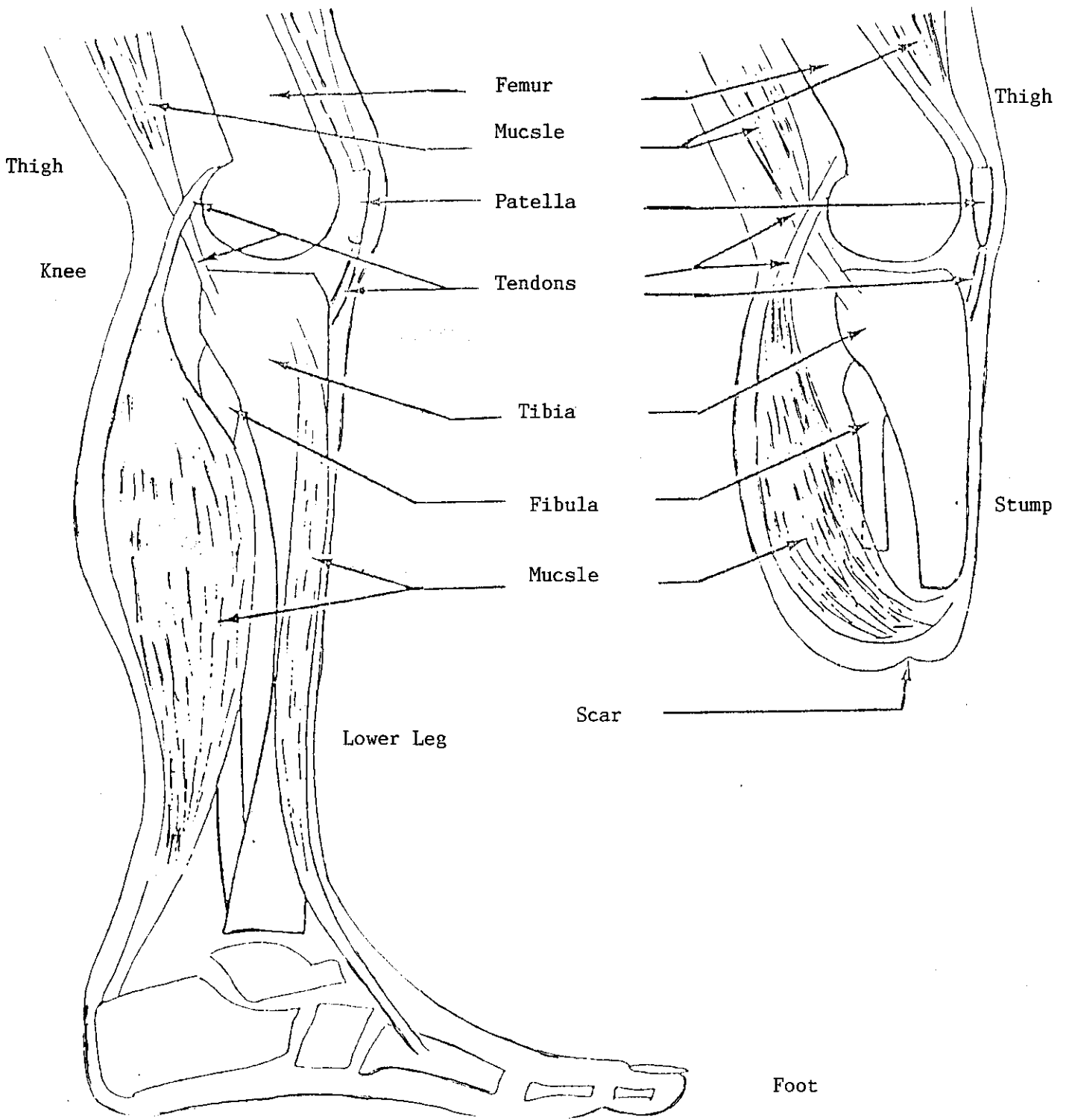


(7)

Side view

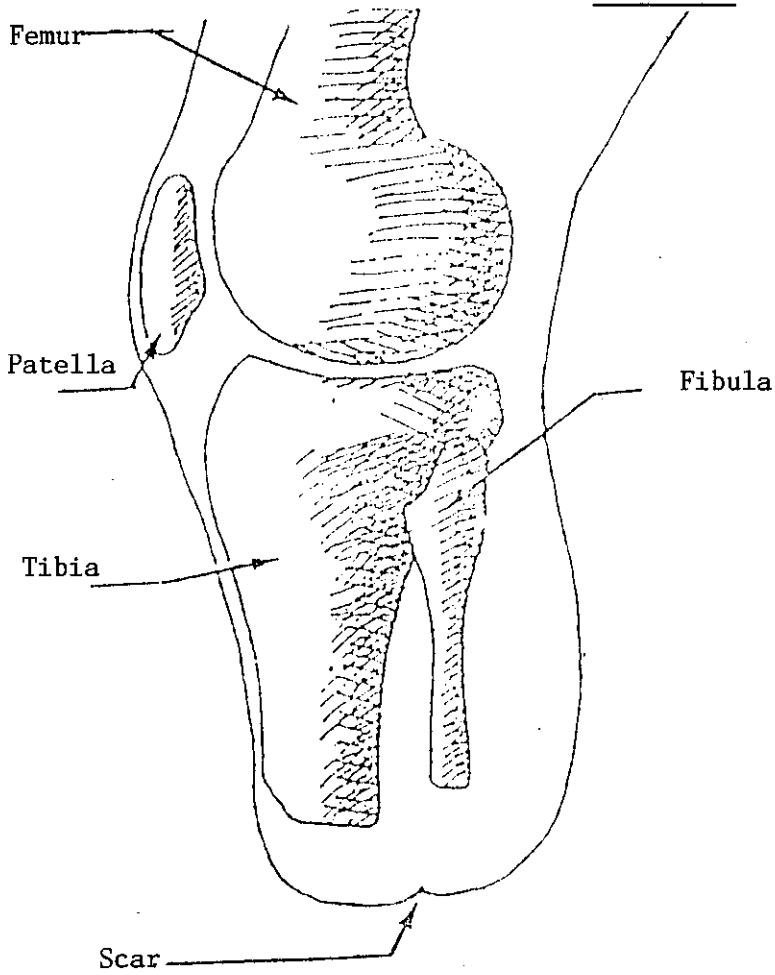
Good Leg

Amputated Leg

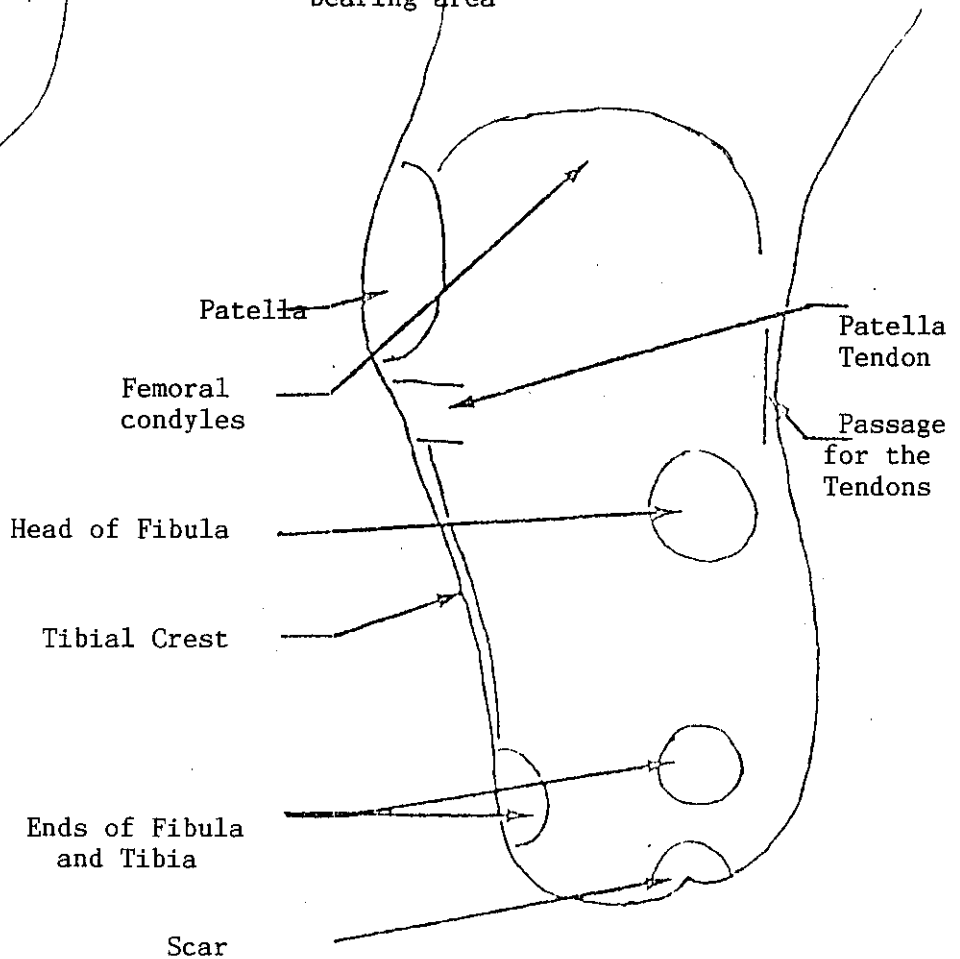


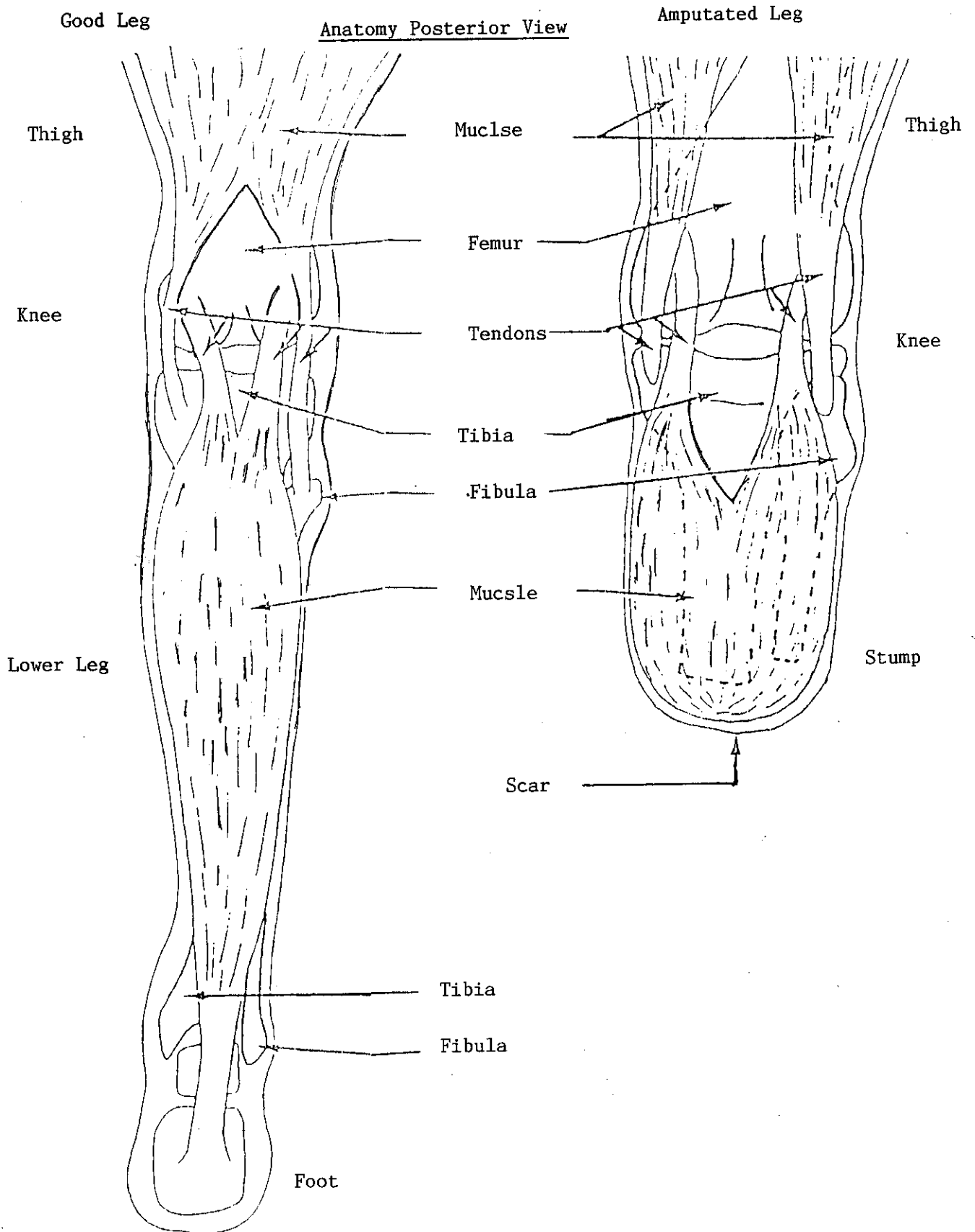
(8)

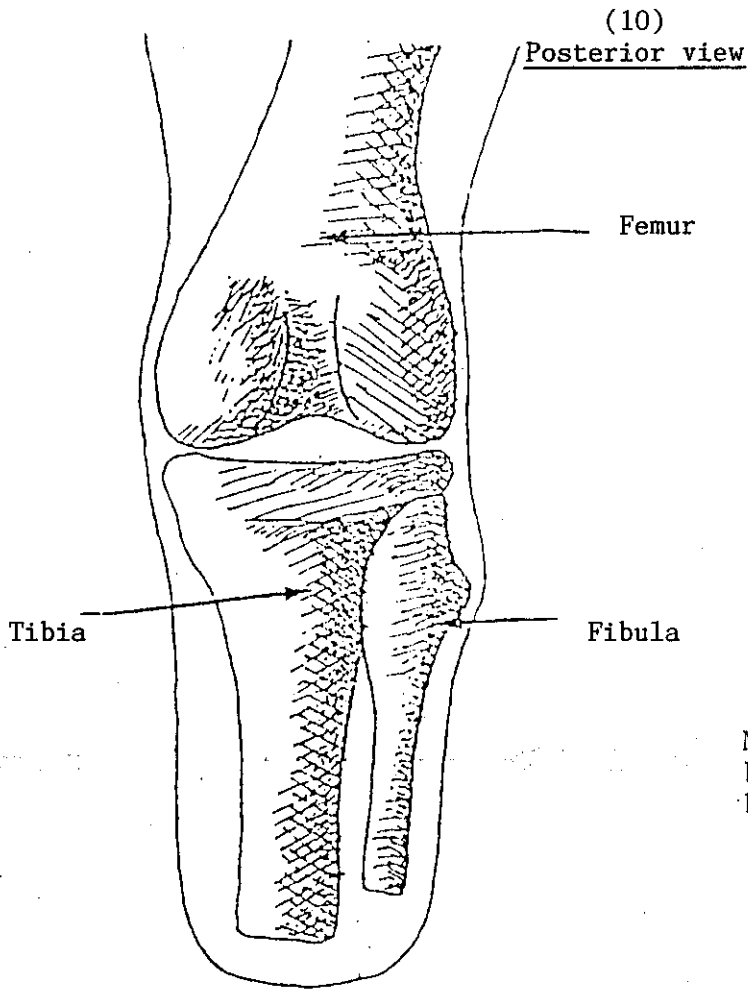
Side view



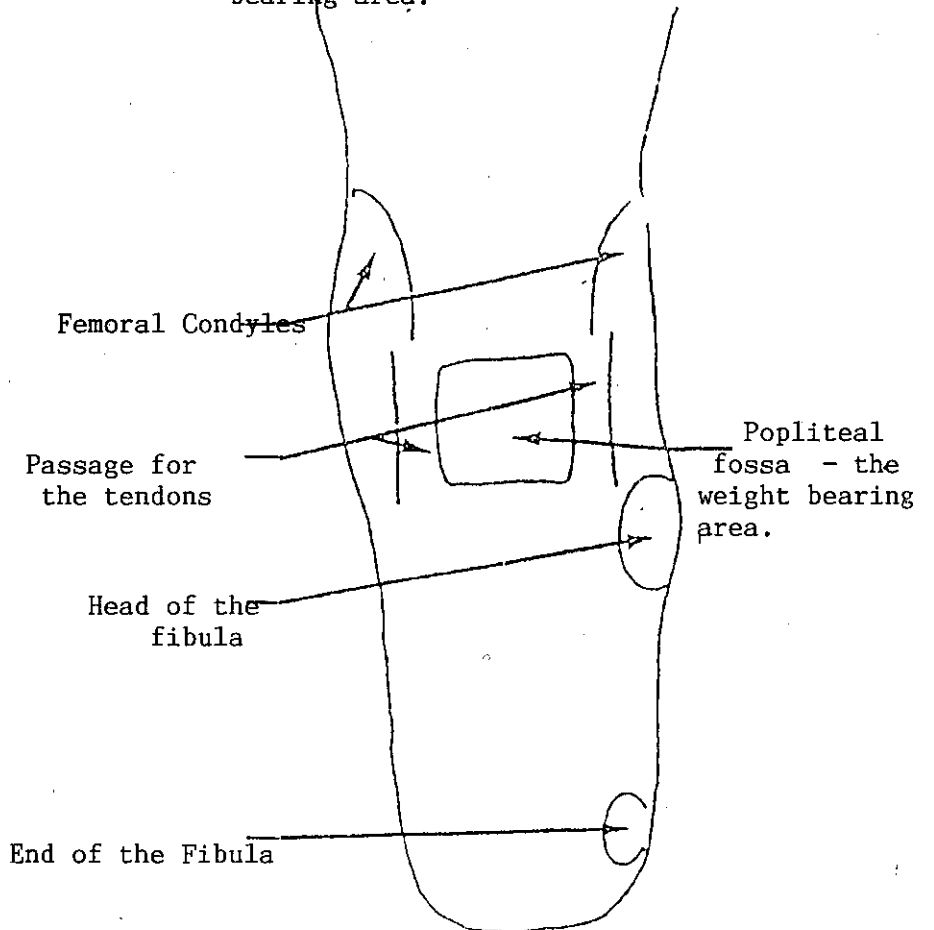
Mark on the stump the painful, sensitive and bony areas as well as the weight bearing area







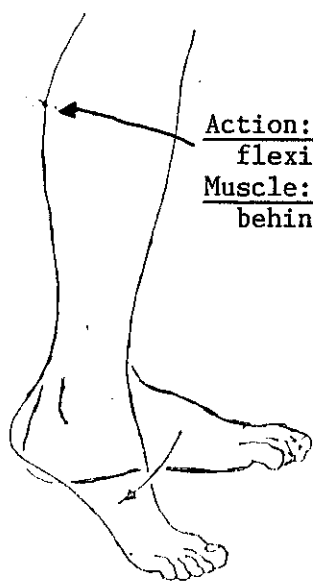
Mark on the stump the painful ,sensitive and bony areas as well as the counter weight bearing area.



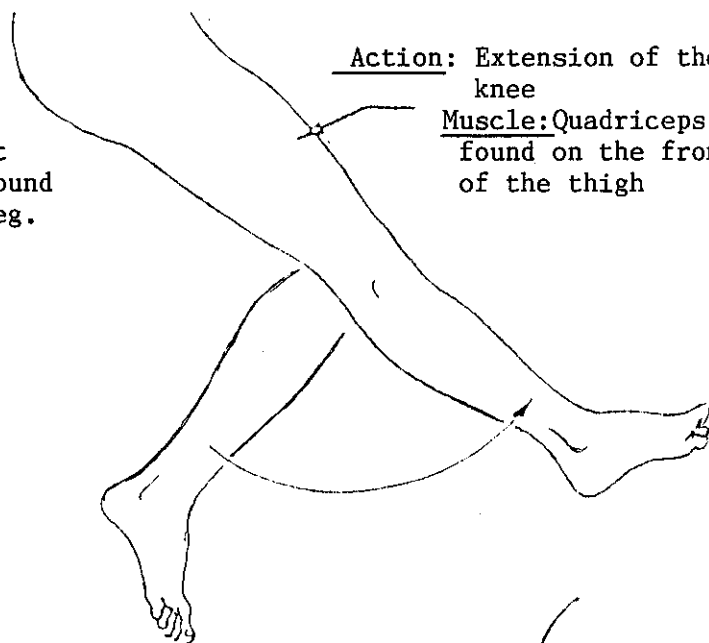
II

Some muscles and their functions

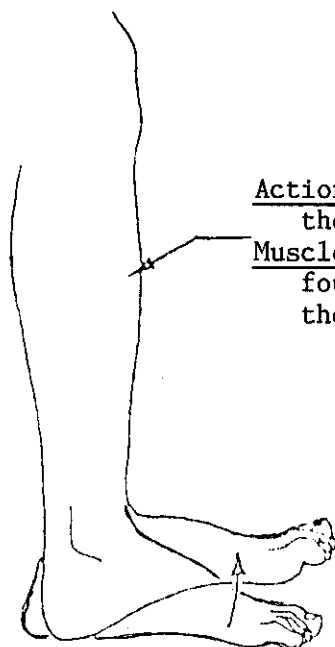
The antensors and flexors of the knee are probably the most important as regards a below the knee amputee.



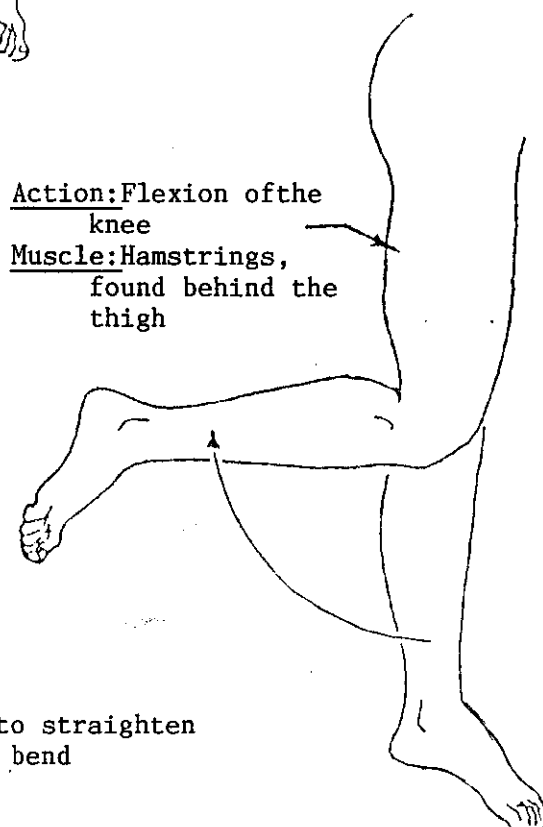
Action: Plantar-
flexion of the foot
Muscle: Calf muscle found
behind the lower leg.



Action: Extension of the
knee
Muscle: Quadriceps
found on the front
of the thigh



Action: Dorsiflexion of
the foot
Muscle: Anterior tibials
found on the front of
the lower leg



Action: Flexion of the
knee
Muscle: Hamstrings,
found behind the
thigh

Thigh = upper leg
Dorsiflexion = to point the foot up
Plantarflexion = to point the foot
down

Extension = to straighten
Flexion = to bend

(12)

Chapter 2

- I. Registration
- II. The Negative

- Registration / Technical Card
- Measuring the Stump
- How to prepare the Stump
- Position of the Hands
- Casting
- The removal of the Cast

(13)

I. Fill in the book

Name of amputee or patient/Date of birth/Sex/Injury/Address

Today's date:

Accident: Cause of accident --- result.

Surgery: Operated --- date,result of operation (BK,AK or other)
Where (place)

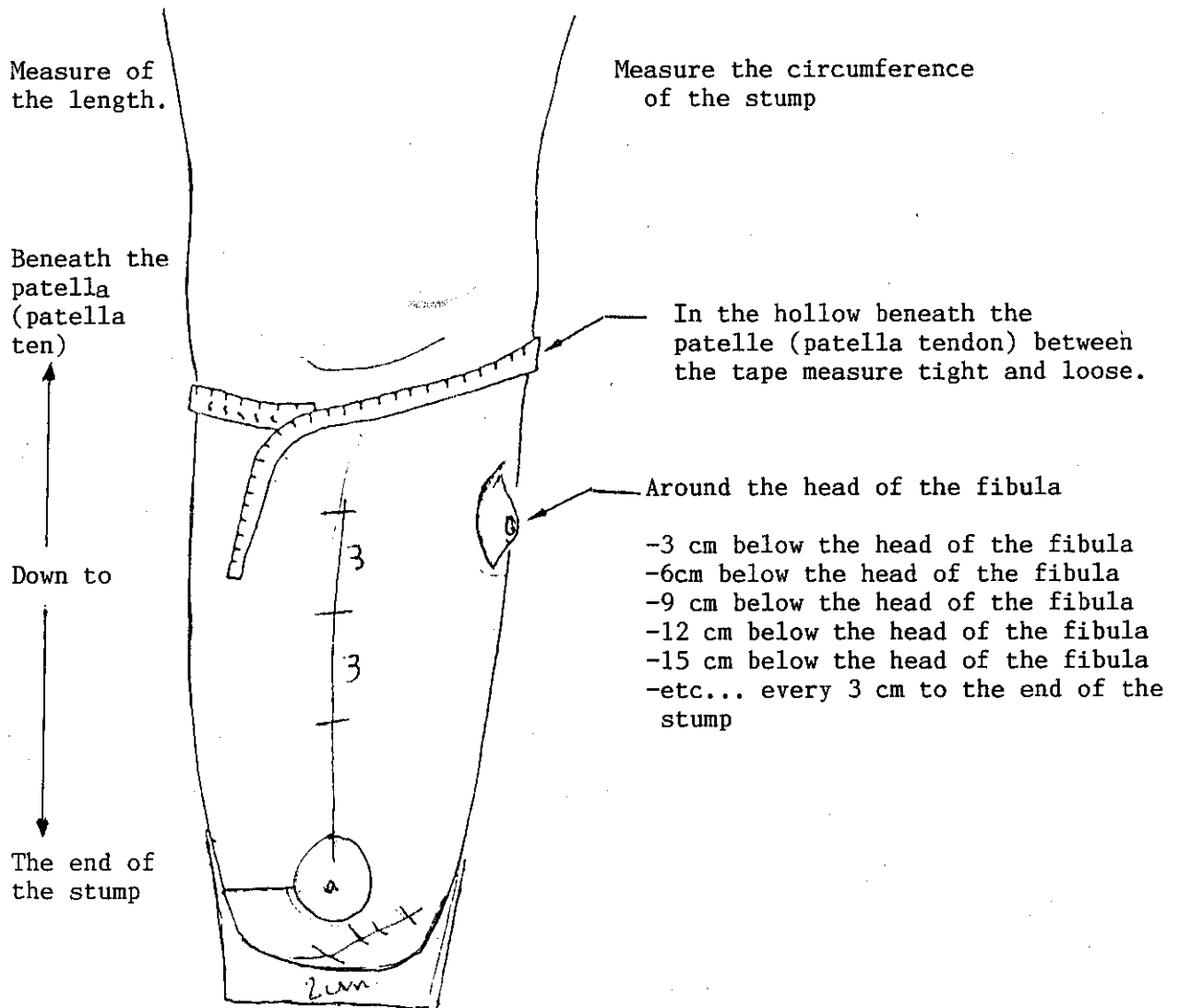
Stump: Length (short,long or medium)A good length for a BK
is 14cm.
Shape (cylindrical)
Painful areas.
Scar in good condition,clean,open or closed ,adhesions
or not.

Prosthesis:Does he have a prosthesis - 1st,2nd or 3rd etc.... If
he has a prosthesis why has he come to OHI. Problem
with the prosthesis or his stump or both.Check prosthesis.
If never had prosthesis-mark in the book NP= new patient
for OHI. Mark name of worker.

Delivery of prosthesis: Date of when prosthesis was finished.
Any problems. Got training.

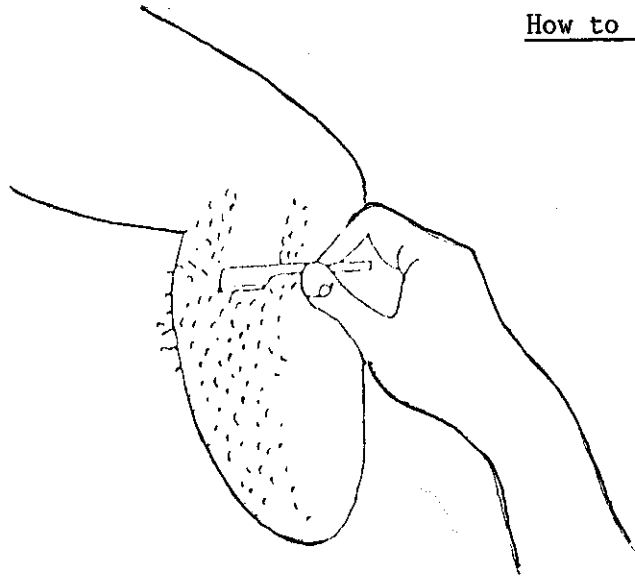
II. Fill in technical card. This must be filled in accurately.

The Measurements

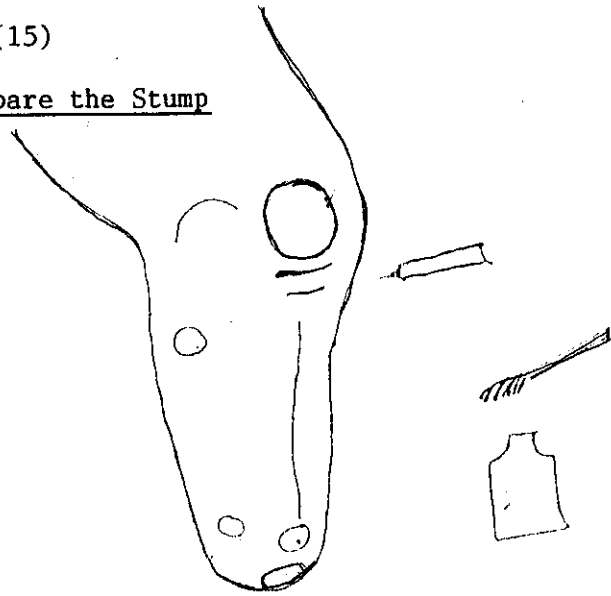


(15)

How to prepare the Stump



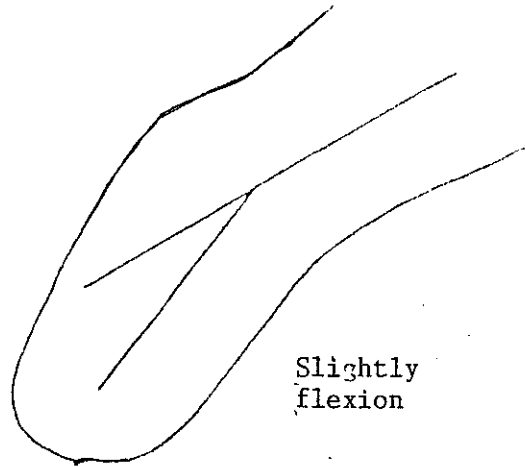
1.) Shave the stump



2.) Mark the sensitive (bony or painful areas) and also the weight bearing area beneath the patella.



3.) Put vaseline or oil on the stump.

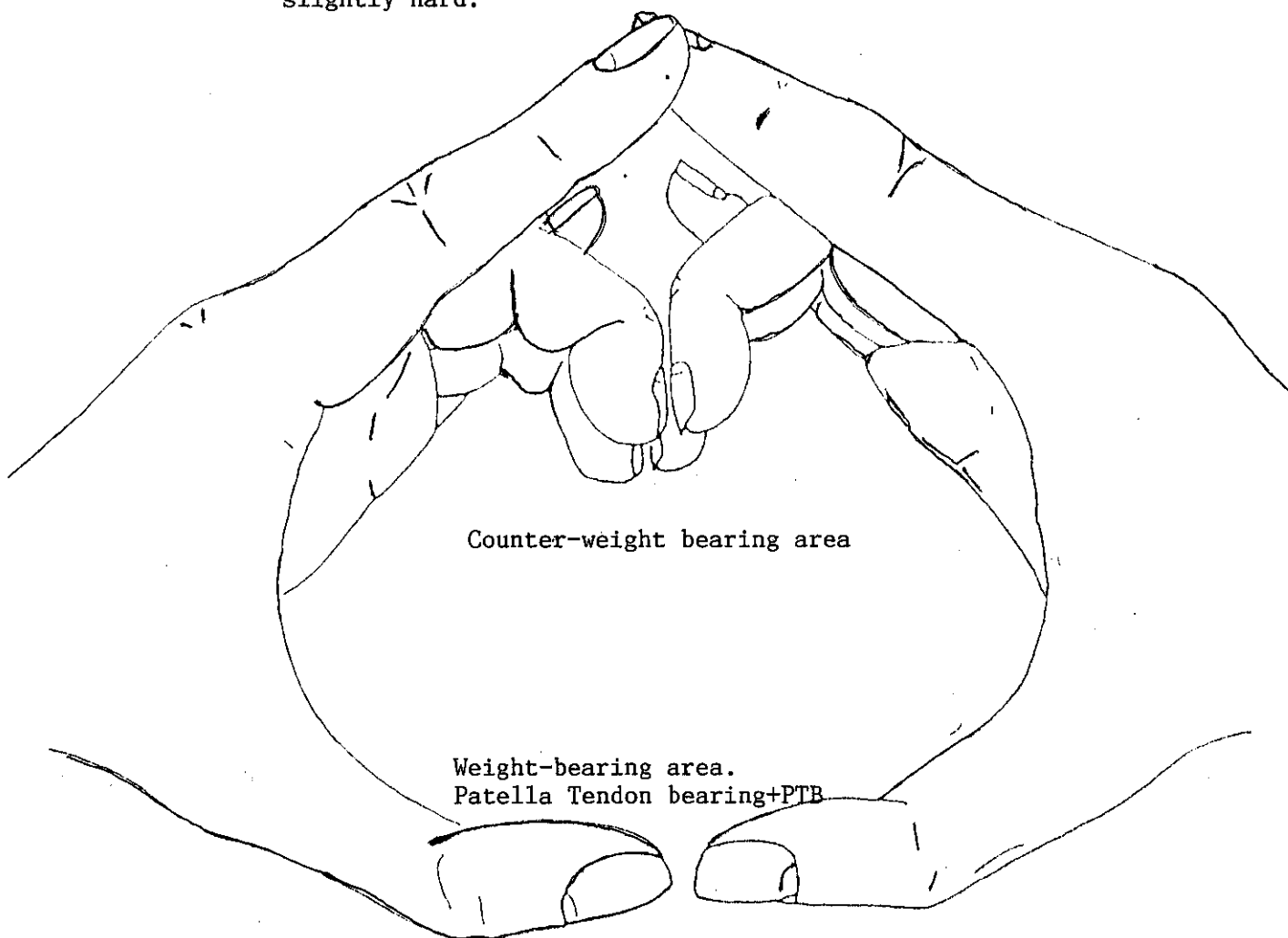


4.) Ask the patient to relax the stump. (This relaxes the patella tendon which can be felt easily.)

(16)

Position of the Hands

Important; This position must be maintained until the plaster becomes slightly hard.



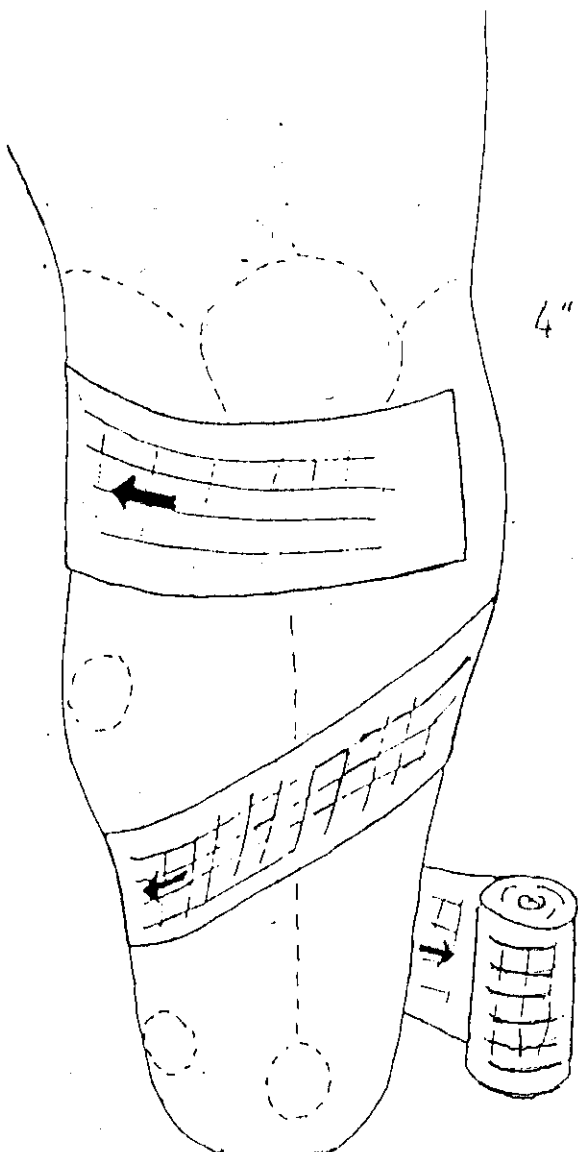
The weight bearing area is found just beneath the patella. You ask the patient to relax the stump and you can feel the tendon. It is known as the patella tendon bearing+PTB.

Counter weight bearing area is horizontally opposite the patella tendon, in the poplite fossa, between the tendons. The tips of the four fingers, ring and middle fingers are used to make an indentation.

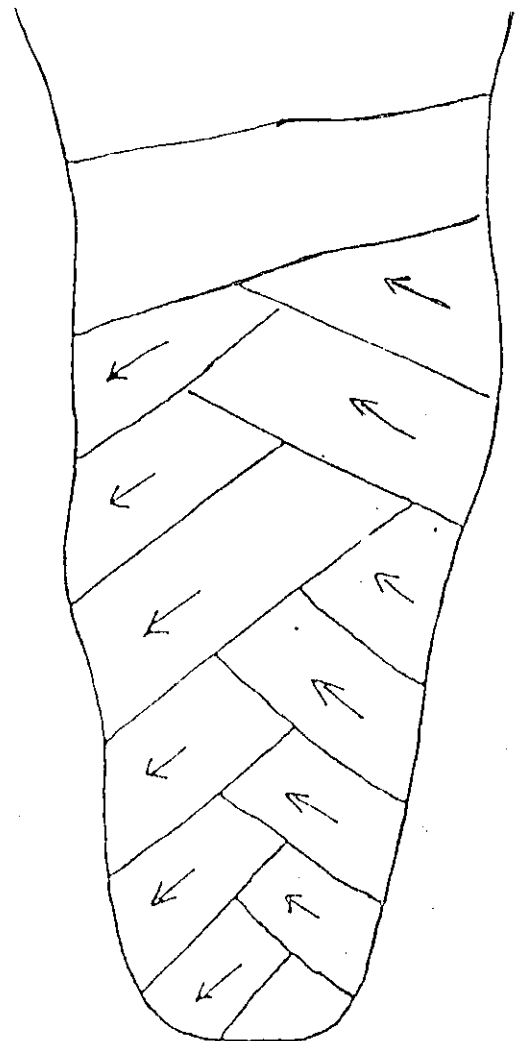
(17)

Casting

- 1.) Use the gauze bandage and plaster of paris.
- 2.) Apply the bandage in a figure of 8- applying the bandage with plaster and making sure that it is smooth.
- 3.) Do not tighten the first bandage.
- 4.) Slightly tighten the second.
- 5.) If a third is used this can be tightened.



4" x 6 Feet



(18) Front View

Remain in this position without moving the hands until the plaster hardens.

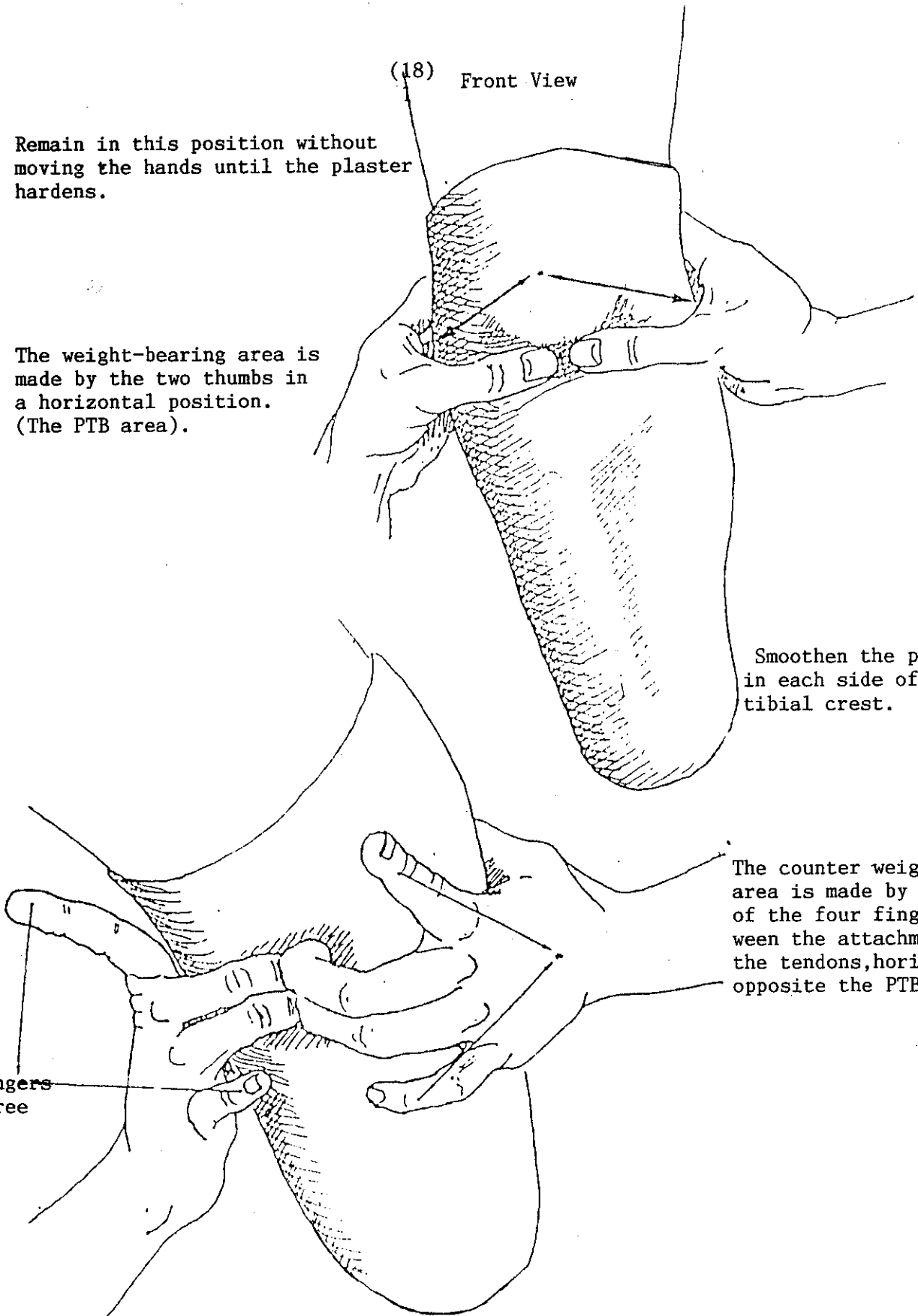
The weight-bearing area is made by the two thumbs in a horizontal position. (The PTB area).

Smoothen the plaster in each side of the tibial crest.

The counter weight bearing area is made by the tips of the four fingers between the attachments of the tendons, horizontally opposite the PTB area.

Those fingers are free

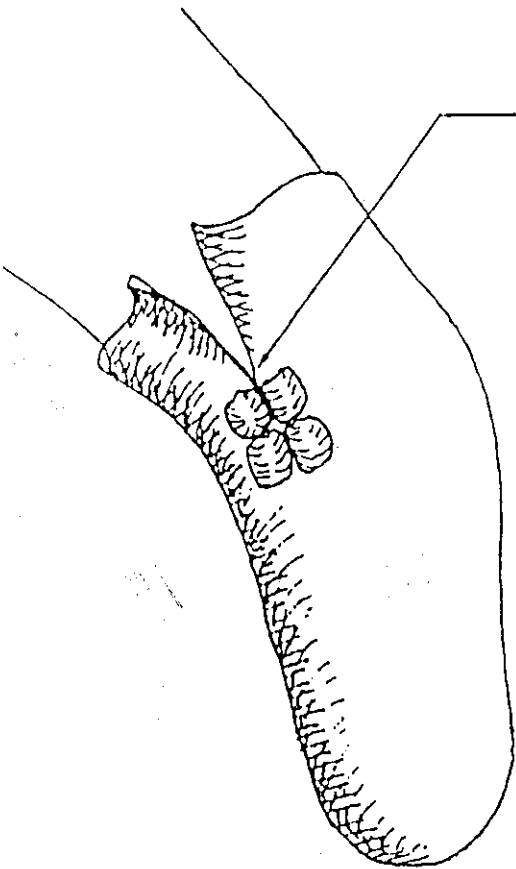
PTB = Patella Tendon Bearing and is the weight bearing area.



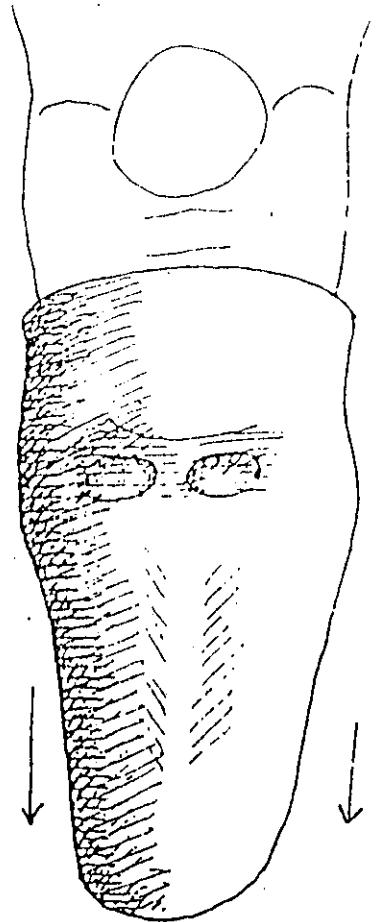
(19)

Removal of the cast

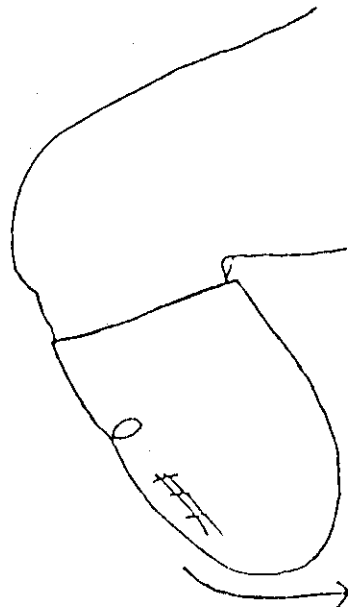
Cut behind .Stop when you reach the counter-weight bearing area.



Remove by pulling the mold down.



It helps to bend the knee.



(20)

Chapter 3

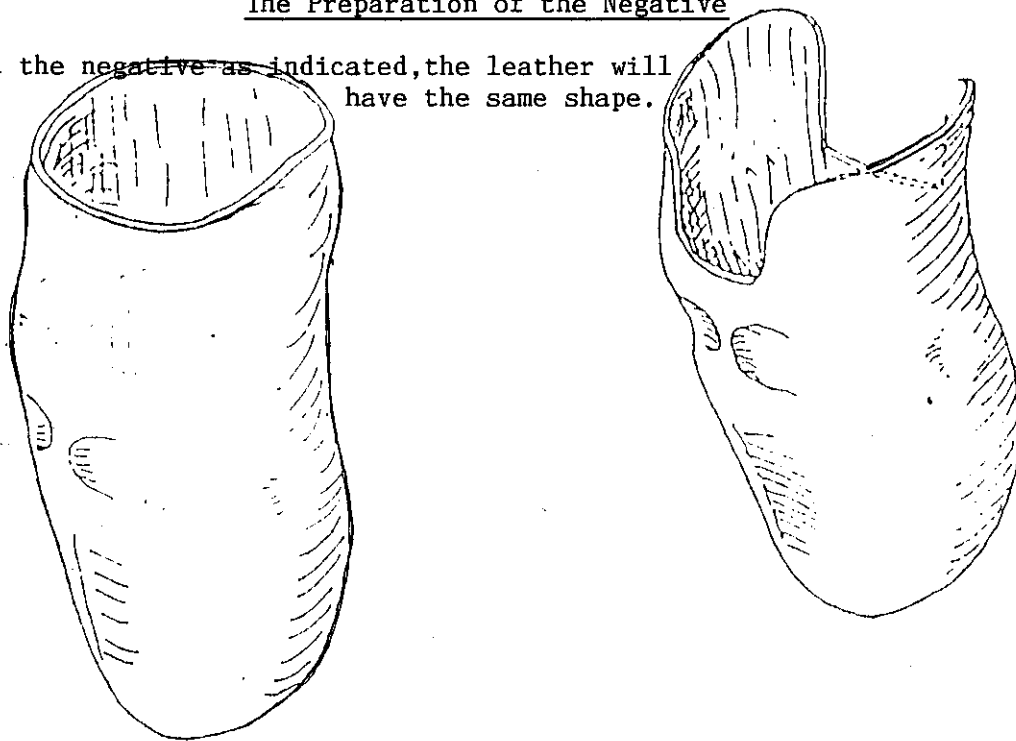
The positive:

- Preparation of the negative
- The plaster: The removal of the mold.
- The positive
 - *Relieve areas
 - *The Buildups
 - *Control the measures

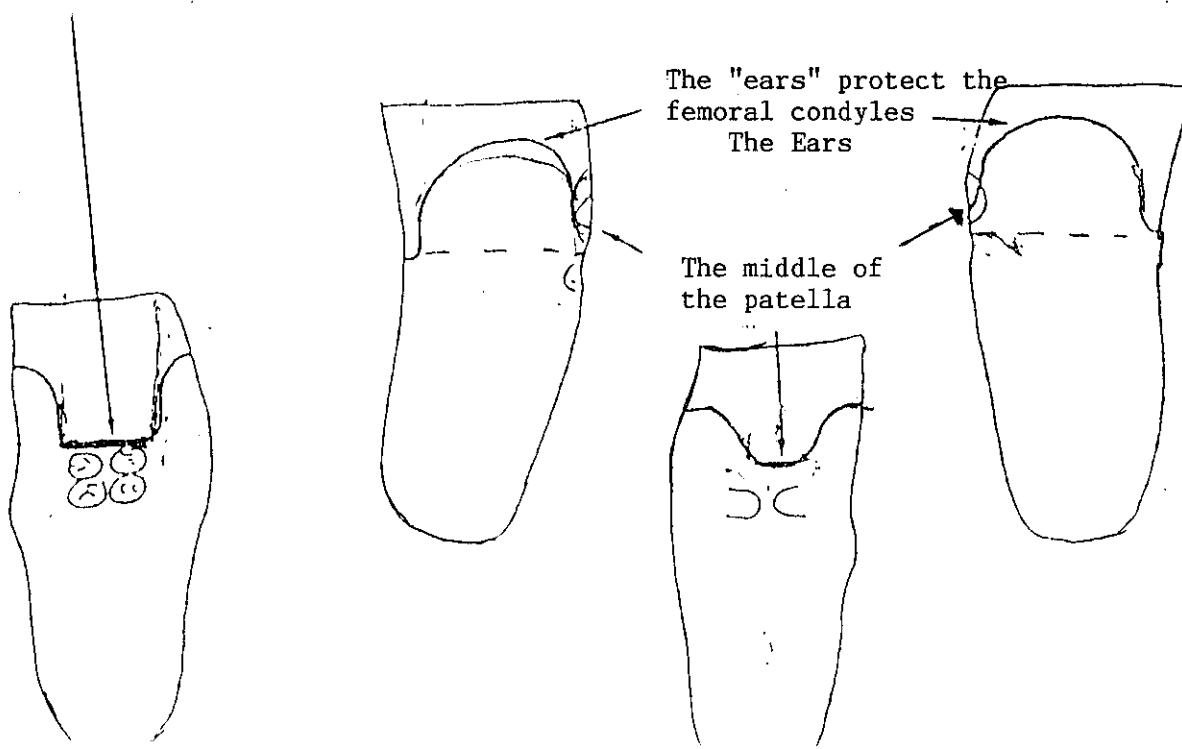
(21)

The Preparation of the Negative

Cut the negative as indicated, the leather will have the same shape.

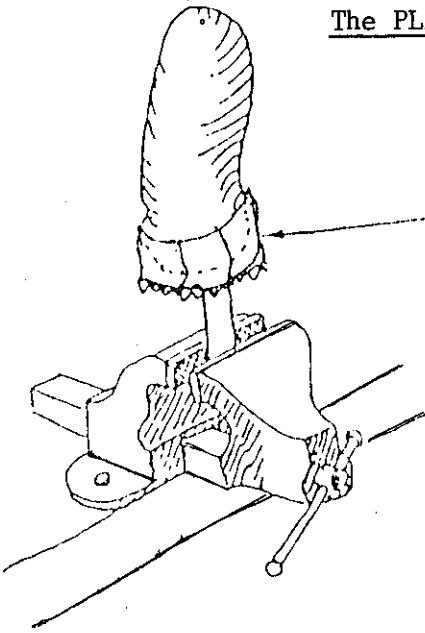


Just to the top of the counter-weight bearing area.



(22)

The PLASTER - The Removal of the Mold

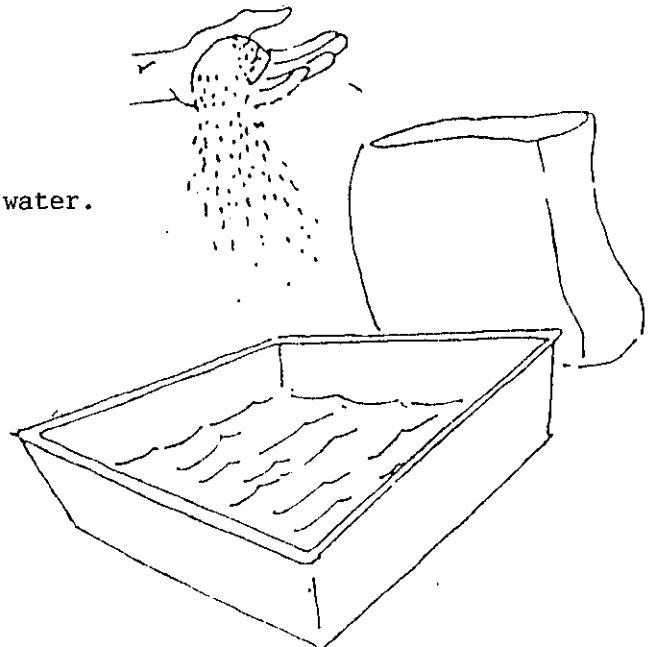


Place a width of bandage (gauze) soaked in plaster around the negative.

Prepare the plaster:
60% of plaster powder
40% of water

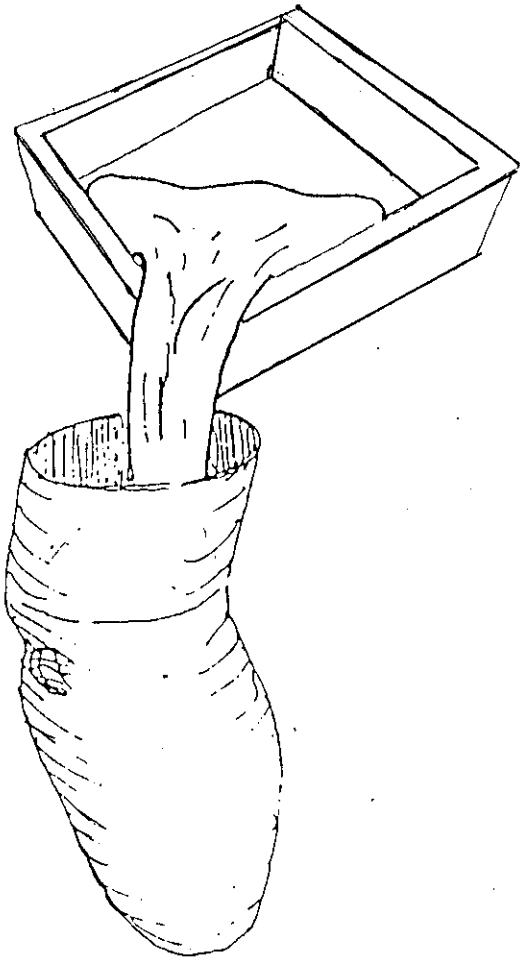
Throw the plaster like rain onto the water.

Let the plaster get wet then mix it.

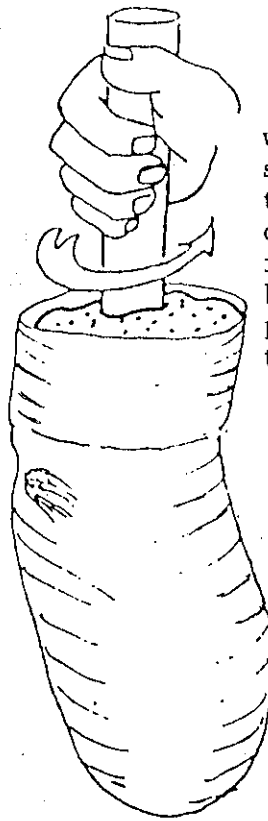


(23)

Pour the plaster.

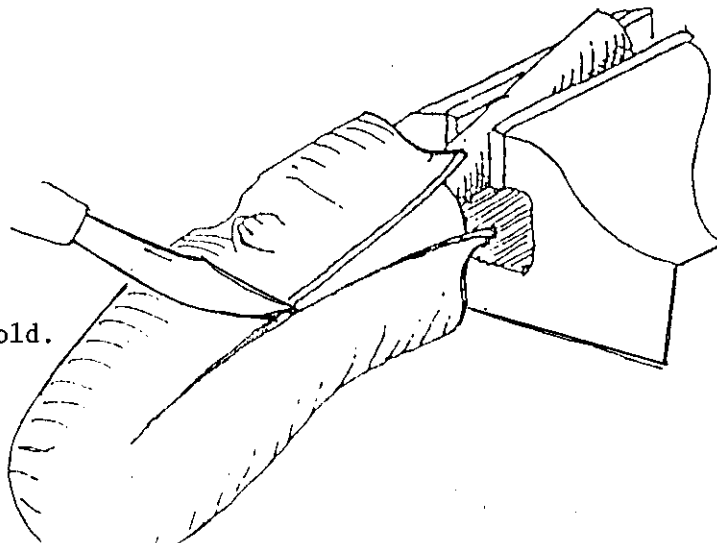


Place a piece of wood into the middle then stir. The wood remains. For that use a wet wood. A dry one will have an effect to increase its size in absorbing the water of the plaster and could break the positive.



Let it harden.

Remove the mold.



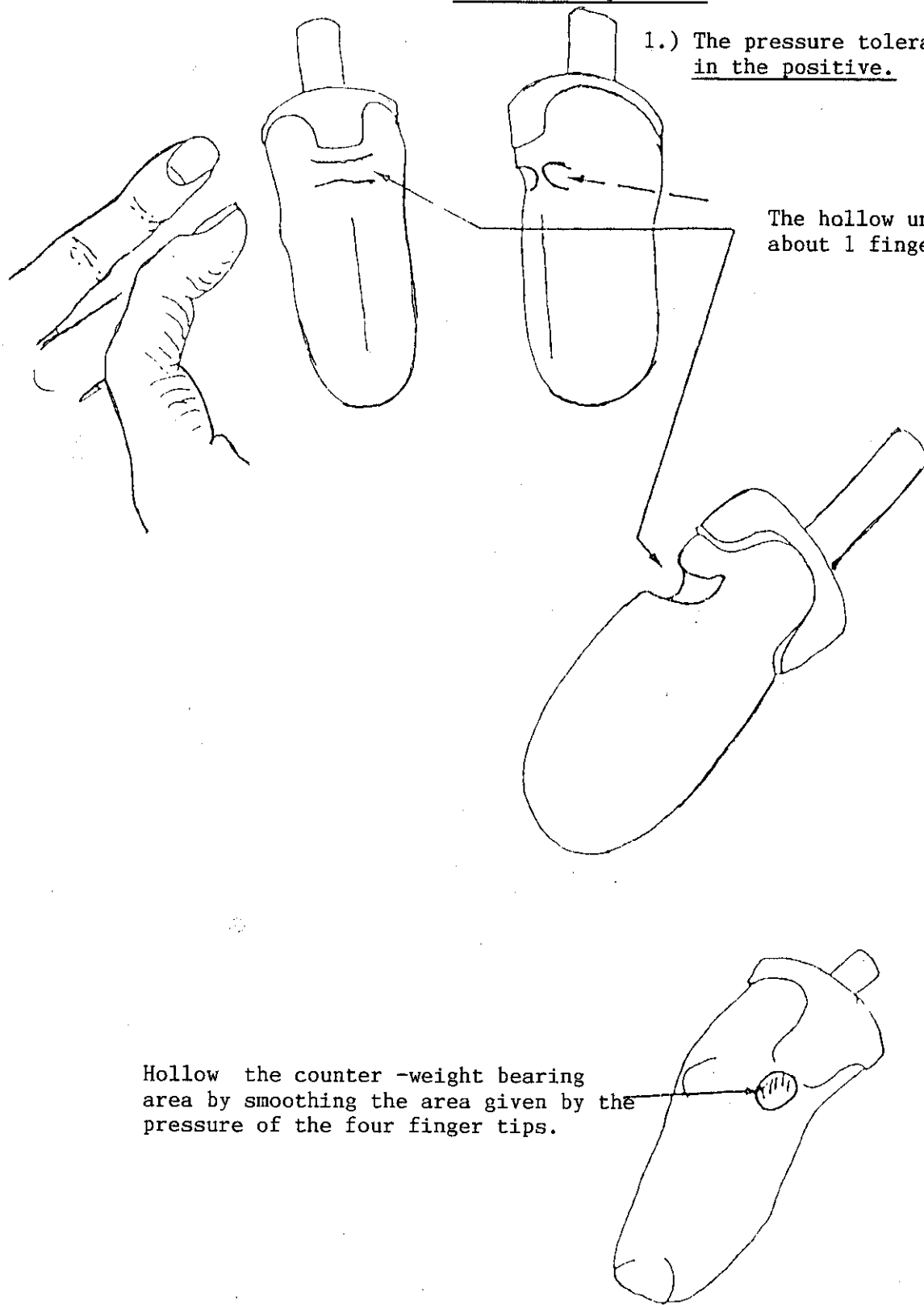
(24)

Work on the positive

1.) The pressure tolerant areas- Relief areas
in the positive.

The hollow under the patella is
about 1 finger in depth.

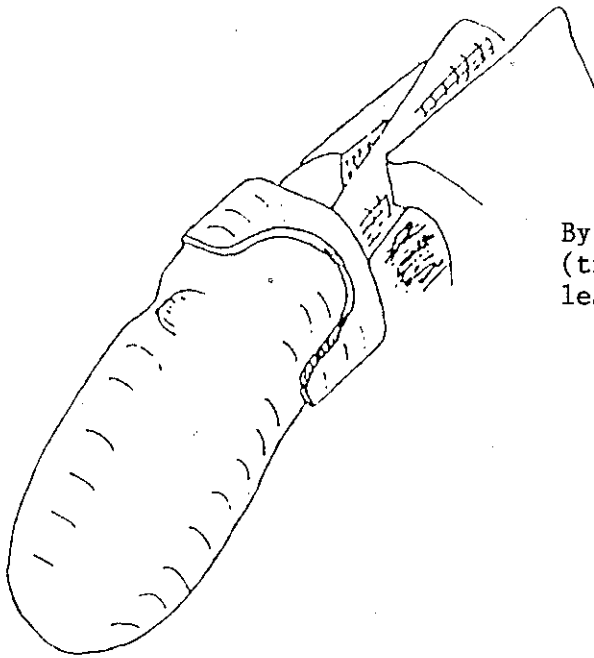
Hollow the counter-weight bearing
area by smoothing the area given by the
pressure of the four finger tips.



(25)

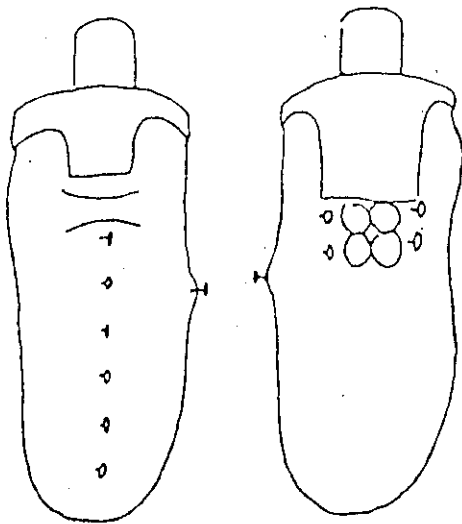
2.) The pressure-sensitive areas.
The build ups

By building this areas up, the pressure sensitive areas, (tibial crest, head of the fibula etc...) this will allow less pressure over these areas.

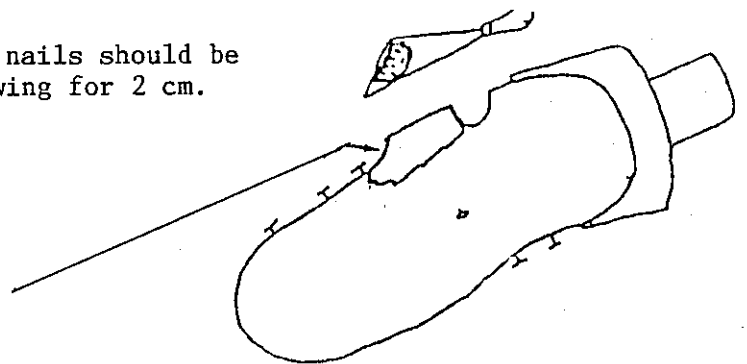


Put little nails:

- 1.) in front - along the tibial crest.
- 2.) at the side - over the head of the fibula.
- 3.) behind - in the passage for the tendons.



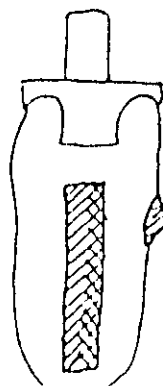
The nails should be showing for 2 cm.



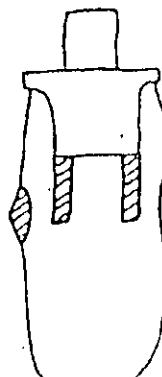
Build up these areas with plaster so that the nails are just covered.

Plaster with
Gentian violet.

Front view

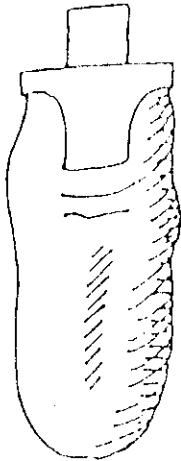


Posterior view



(26)

Rub down the positive with a net so that the nails are just showing.
Thus the "Build ups" are of 2mm.

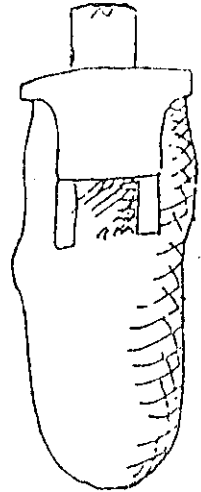


Front view

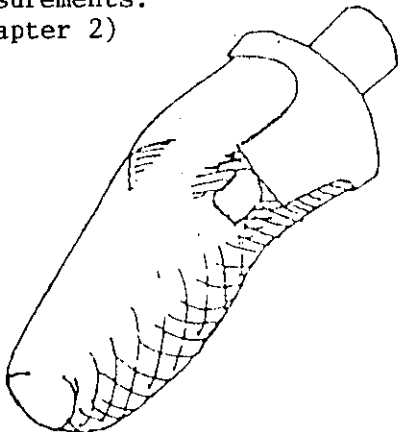
Scrape each side of the tibial crest
giving the positive a triangular form.



Posterior View

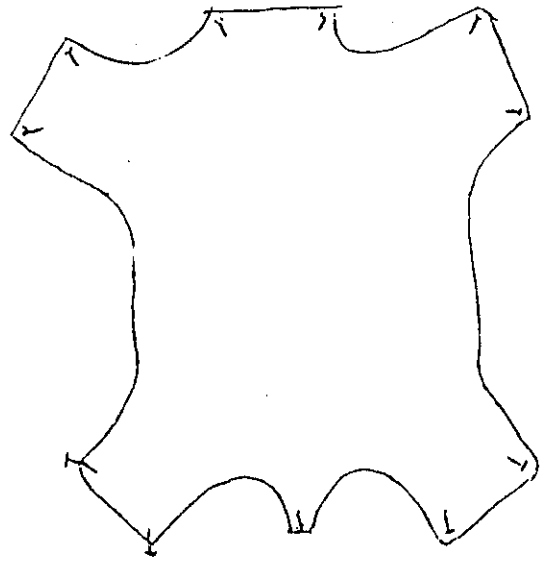


Rub the positive, with the net on the posterior
surface and each side until you have the exact
measurements.
(Chapter 2)



The finishing touches are
made with a fine net. (Wire screen)

(27)

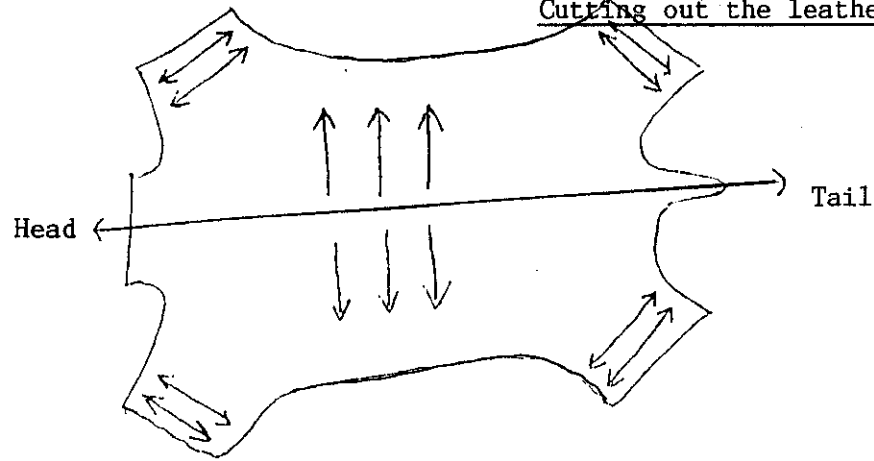


Chapter 4

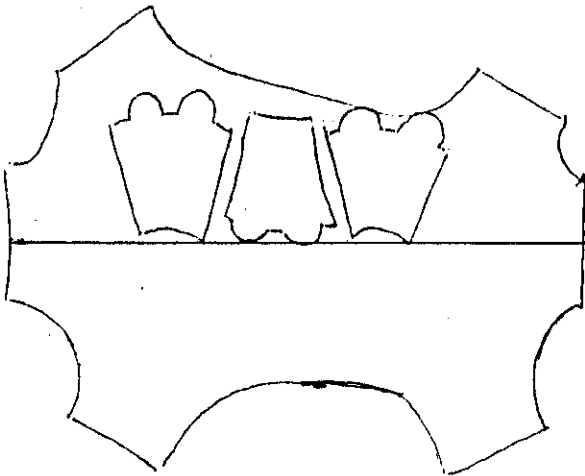
- Brown paper pattern
- Cutting out of the leather
- Preparation of the leather
- Placing on the positive
- The first leather strip
- Finishing the sleeve
- Marking the closure of the leather
- The passage for the tendons
- Sewing

(28)

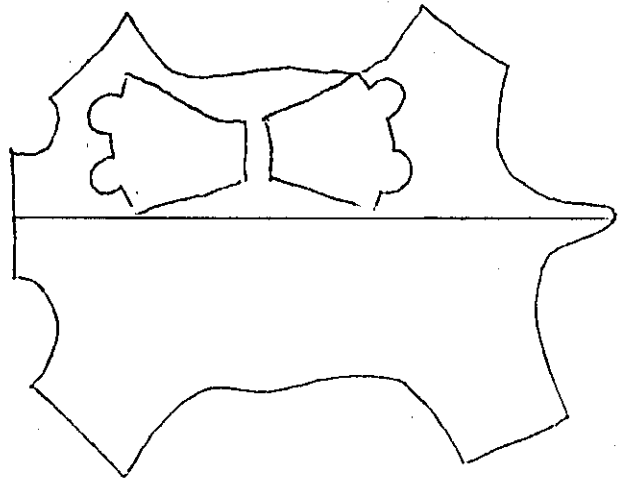
Cutting out the leather



The leather is most flexible in the direction indicated by the arrows. Thus when cutting out the leather for the sleeve it is very important that this flexibility is in the length of the sleeve, not in the circumference, otherwise the leather sleeve will become too large much quicker than usual.



Good

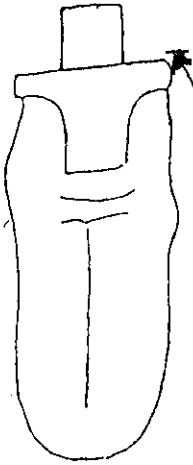


Bad

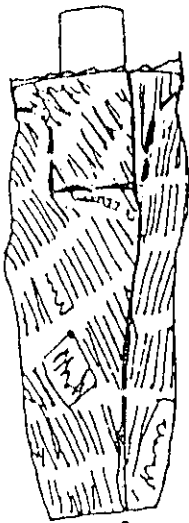
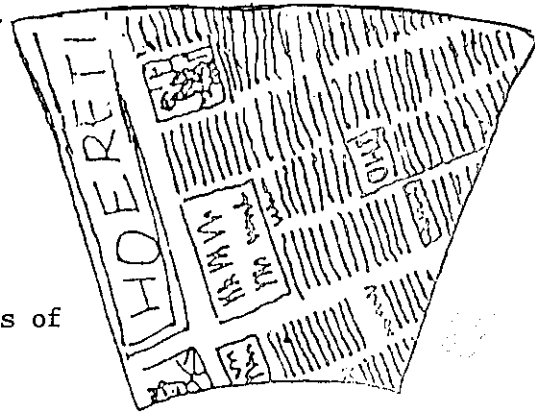
(29)

Brown Paper

Cut out the brown paper using the positive. This will be eventually used to trace out the leather for the sleeve.

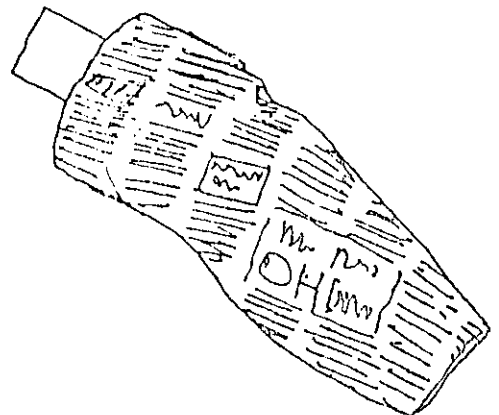


The paper must follow 2 fingers upper the borders of the positive.



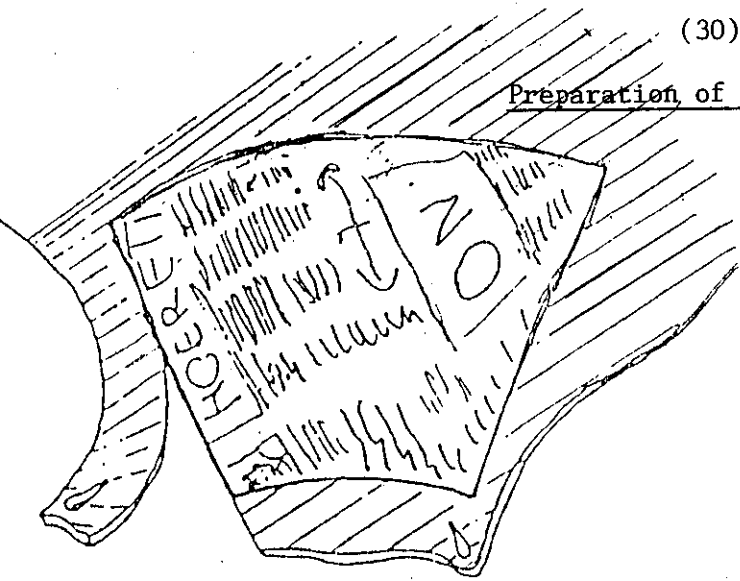
Back View

The edges overlap by two finger widths to allow for the sewing together of the sleeve.



(30)

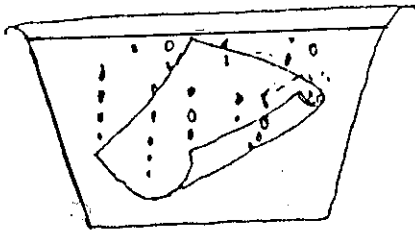
Preparation of the leather



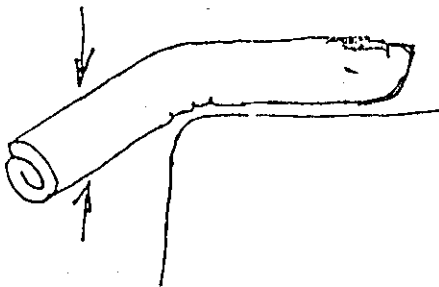
Cut out the leather from the brown paper.

Careful

- The outer side of the leather where the coat was attached is the smooth side.
- The flesh side of the leather is the rough side.



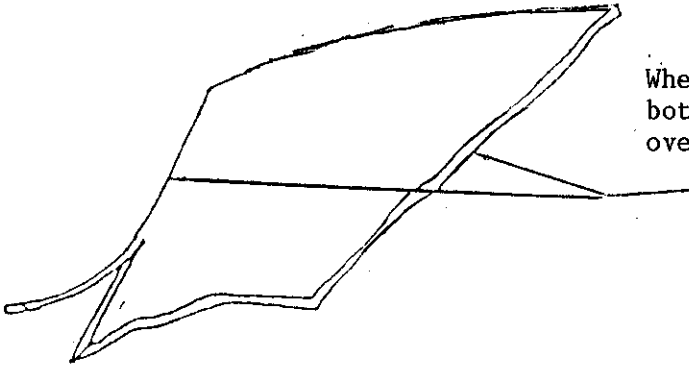
Put the leather to soak in water.



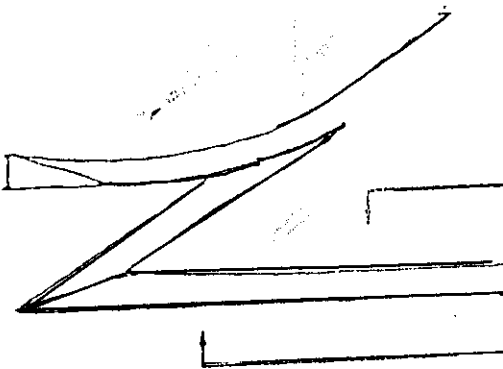
Twist and turn the leather while it is in the water to make it softer.

It is good to soak the leather for a few hours.

(31)

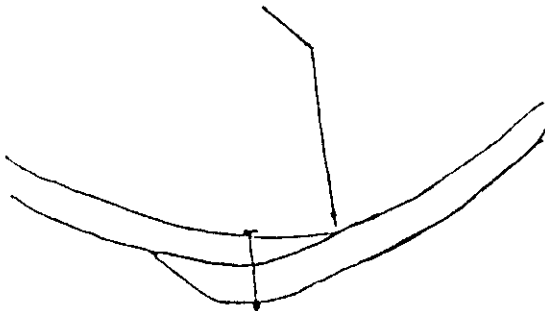


When the leather is well soaked .You can bevel the bottom of the leather and the edges which will be overlapping.A sharp knife is needed.

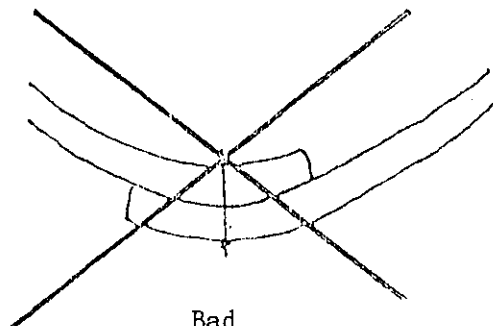


The bevelled edge goes from the inside, flesh side, to the outer, exterior side of the leather.

The bevelled edges allow a smooth overlap with no steps.



Good



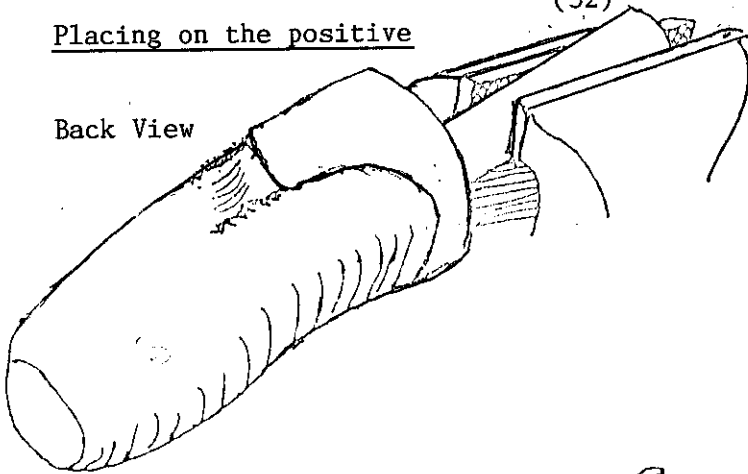
Bad

Alternative: This bevelled edge can also be cut before the leather is soaked, when it is still dry.

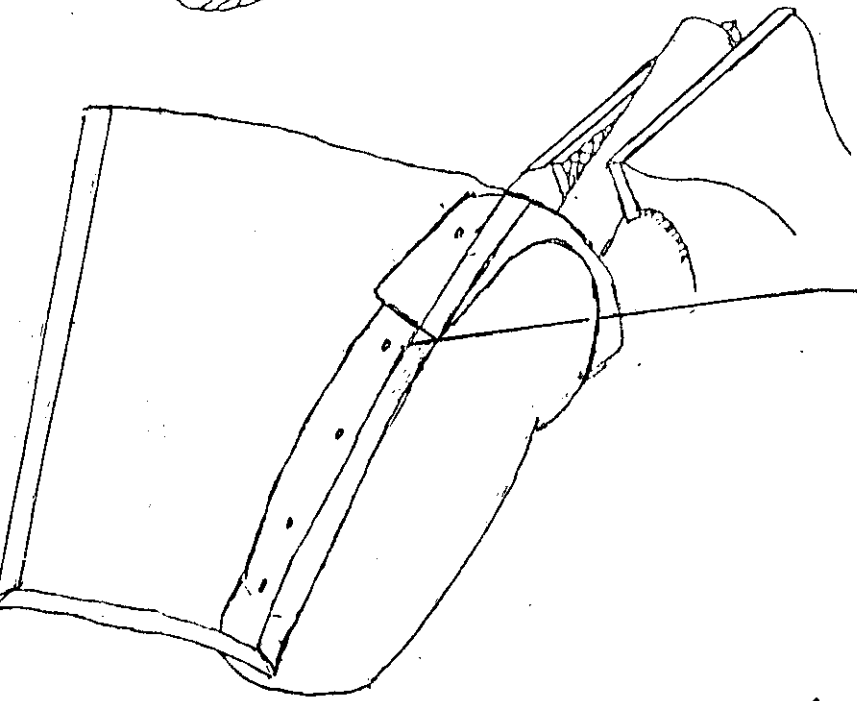
Placing on the positive

(32)

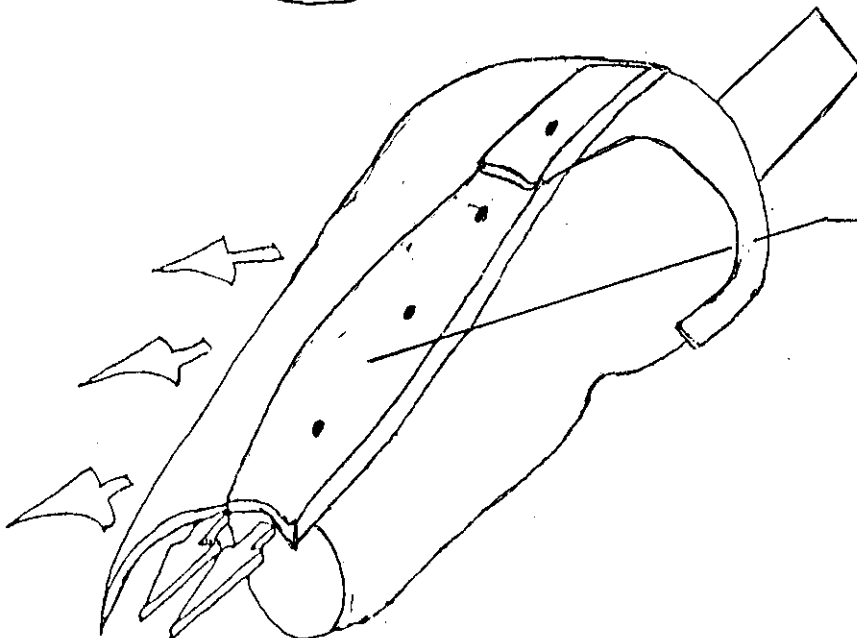
Back View



Fix the positive in a vice grip.



Nail the leather in the tendon line

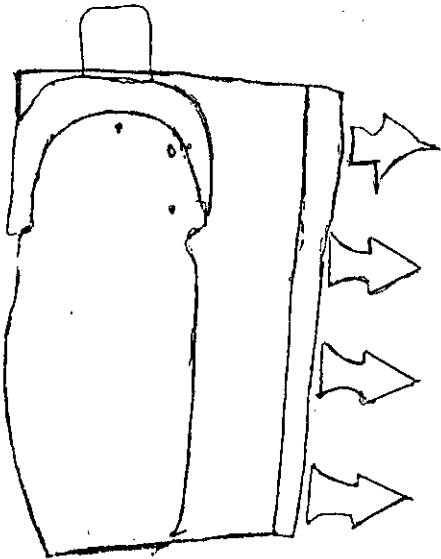


Turn the leather along the positive pulling strongly.

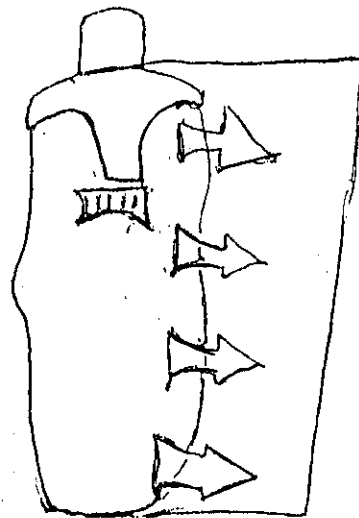
Mold the leather with a bamboo stick.

(33)

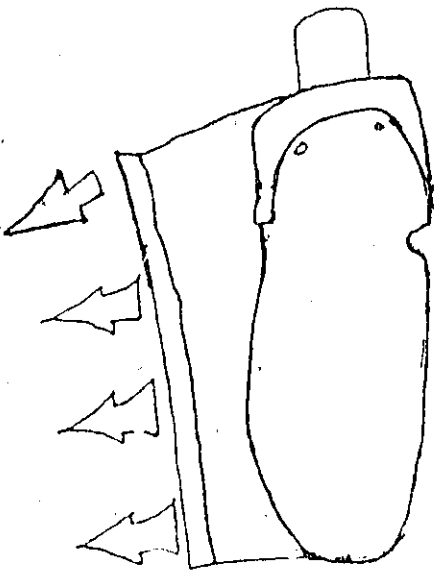
The arrows indicate the direction of pull.



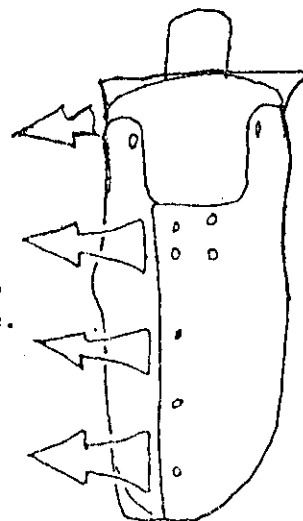
Mold the patella
(patella tendon bearing
PTB)



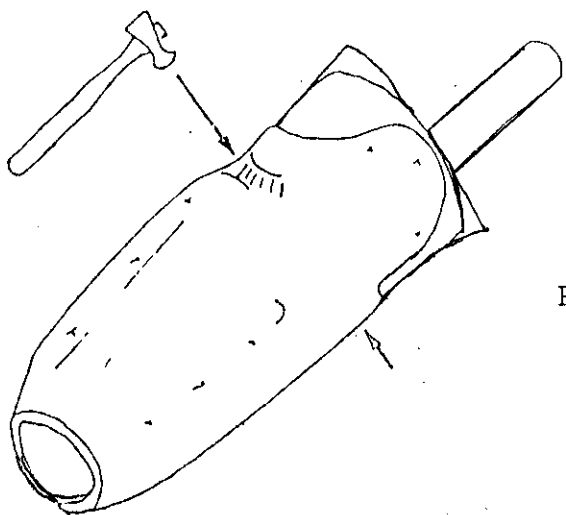
Then the outer side



Make sure that you pull the leather so
that it is well molded on the positive.



(34)

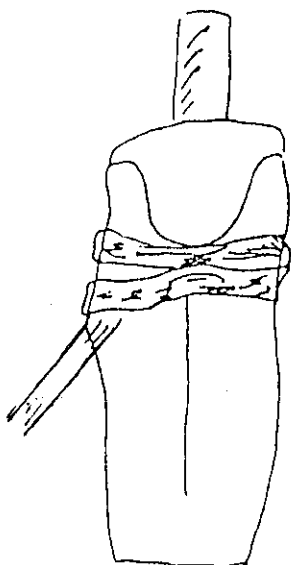


Hammer the leather well in the weight-bearing area and the counter-weight bearing area.

Put the leather to dry.

During the drying period rub down the leather with the handle of a hammer or a piece of bamboo so that the fibers of the leather are tight and shining.

Fix the leather on the positive using an inner tube.



Pull strongly

(35)

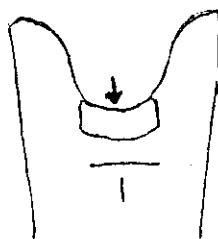
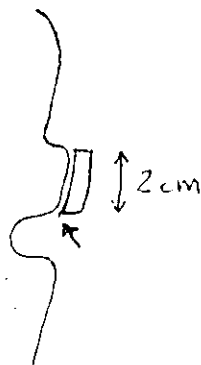
The 1st strip of leather

This is used to make the superior anterior embrace, take more weight
Embrace = encircling bar.

It is made out of leather that is used for the sleeve and is about
2cm wide.

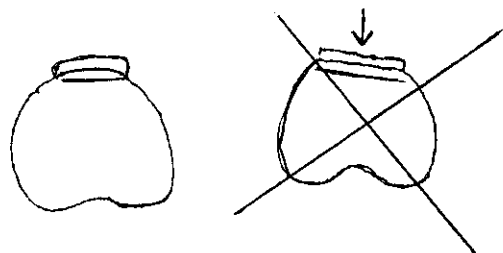
Below it follows the superior border
of the hollow where is found the
patella tendon.

Above it follows the
superior border of the sleeve.



Sew this strip of leather (see closure of leather).

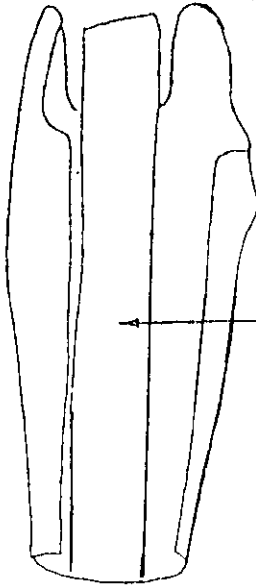
Careful: Respect the form of the leather.
This strip must follow the curves of the sleeve.



(36)

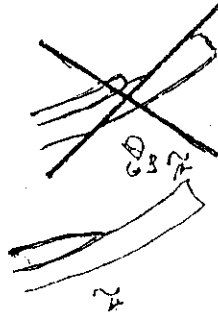
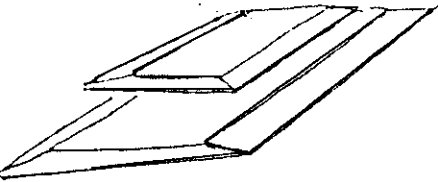
The finishing touches to the leather

To protect the skin over the tibial crest and the head of the fibula, thin sponge and thin soft leather is placed in these areas inside the leather sleeve.



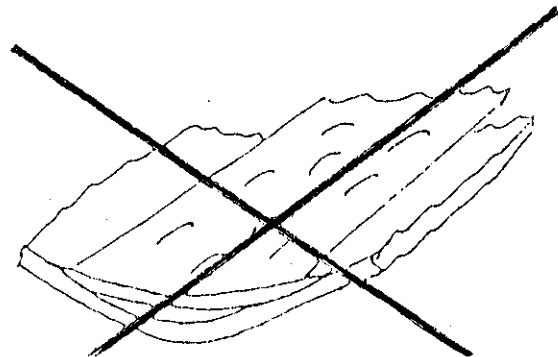
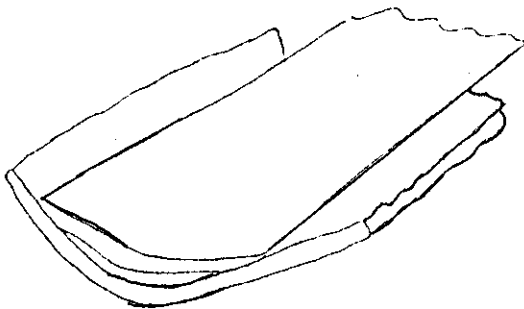
The thin sponge is about 3cm wide. It covers the tibial crest and continuous to just below the PTB area, below the patelle on the outside of the sleeve.

The thin leather then covers the sponge.



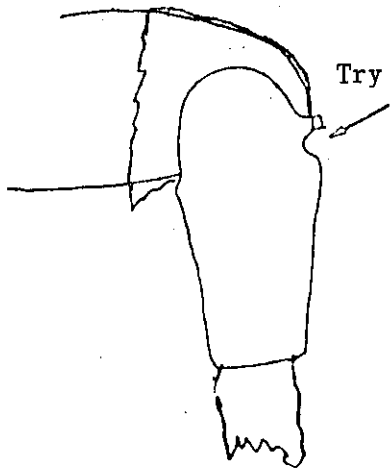
Both the sponge and the soft leather are bevelled to prevent any steps.

While sticking the sponge and leather keep the sleeve as close as possible to prevent folds.



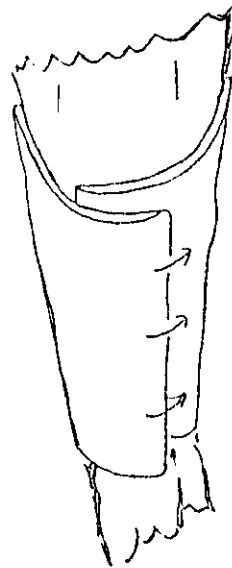
(37)

Closure of the leather - just marking

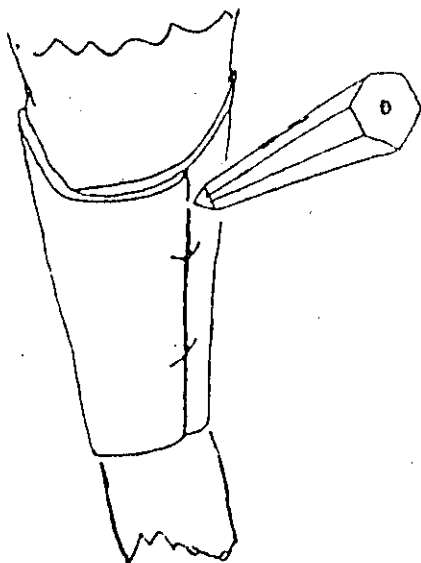


Try the leather on the stump

Check that the patella tendonbearing area is correctly in place under the patella.



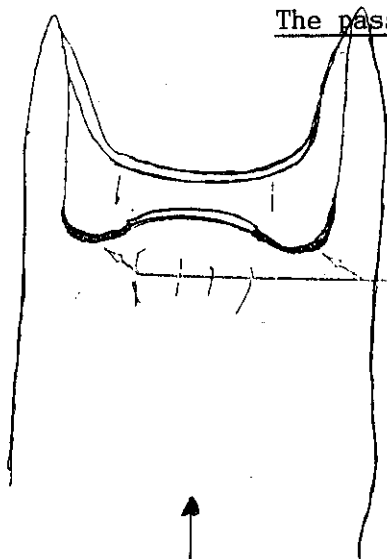
Close evenly and firmly on the stump.



Mark a line allowing the leather to overlap and two points which are all used as guide marks when joining the leather.

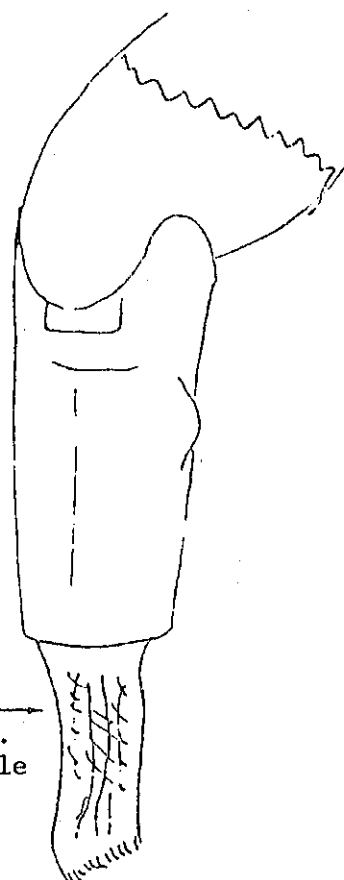
This procedure is easier and more accurately carried out with two people. The first person holding the sleeve in place, and the second marking the guide lines.

The passage for the tendons-hamstring tendons



Make a space for the tendons.

Posterior View

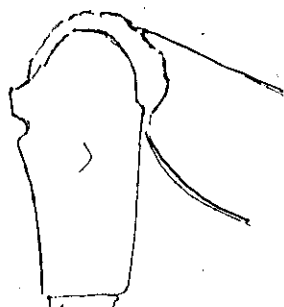


Put the sleeve on, with the help from a piece of cotton wrapped around the stump. Careful-no pleats. Pull down the cotton while putting the sleeve in place.



Full extension

Ask the amputee to extend and bend the knee. Full range of movement each time. If pain on full flexion. Make more space for the tendons, until the amputee has no pain.



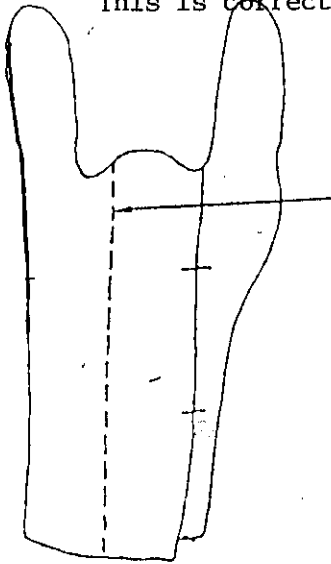
Full Flexion

The patient must put the full weight of the body in the socket leather. Ask him about the pain.

(39)

Sewing

This is corrected out with a thread or linen coated with wax.



Back View

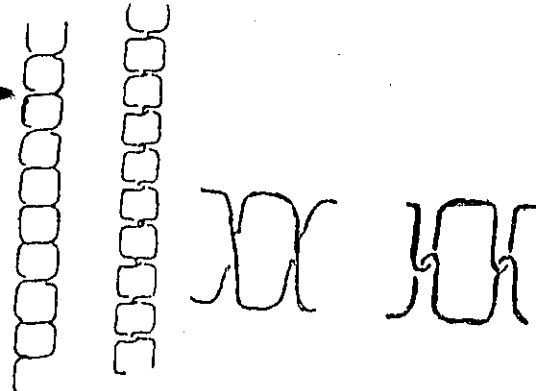
The sewing must be carried out in an area that will be protected later by thin leather. Trace a line for the sewing together, make sure that the guide points are respected.




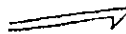
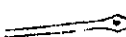
Make little holes by means of a comb.



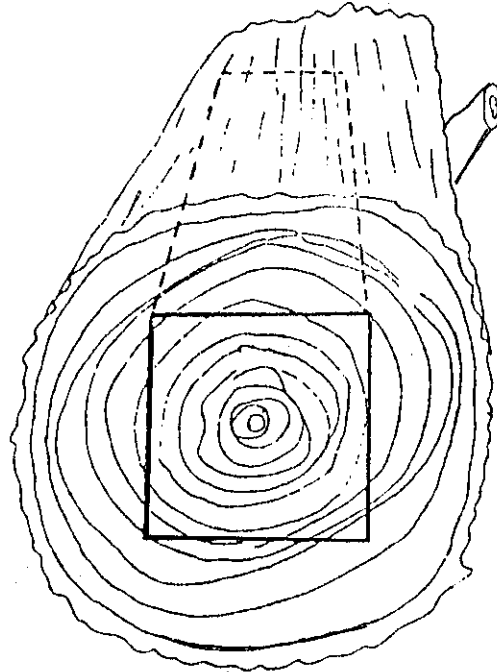
Make a little canal to house the sewing.

Sew using these holes



-  -iron wire 2mm.
-  -wild boar hair
-  -curved needle
-  -hook
-  -broawl

(40)

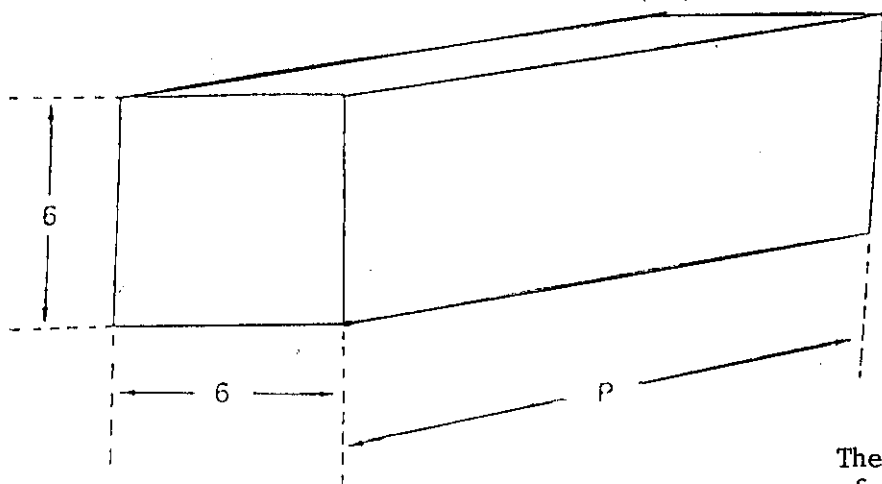


Chapter 5

The Pylon and the Upright bars.

- Measuring for the pylon
 - Measuring for the upright bars
 - Piercing the bars
 - Piercing the pylon
- The Joining together

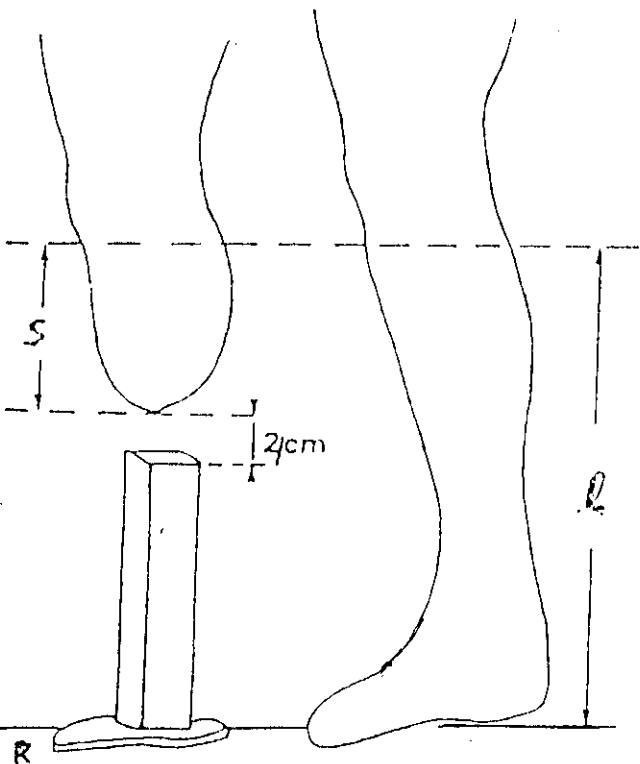
(41)



Measuring for the Pylon

The pylon must be made out of wood fairly hard of good quality.

Measurements:= bem x bem x P.



How to calculate the length of the Pylon (P)

L= length of good leg from below the patella to the ground

S= length of stump
2/ cm space for cloth and leather

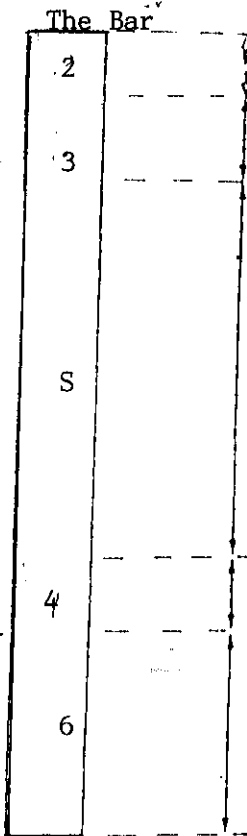
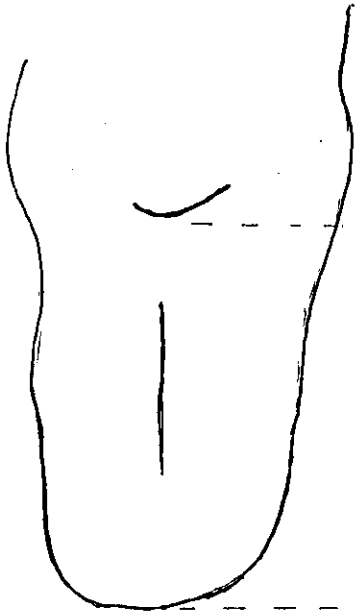
R= weight of sole of foot (rubber)
(this is variable) 1 cm

$P = L - (S + R + 2/ \text{cm})$

$P = L - (S + 5 \text{ cm})$ for security

$P = L - (S + 3 \text{ cm})$

Measuring for the Upright Bars



The two bars are of the same length.

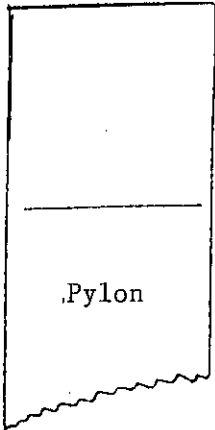
How to calculate the length of the bars.

For fixation buckles= 2cm

For the twisting of the bars=3cm

Length of the stump =mm

Cloth and leather space=2 cm



$$\begin{aligned} \text{Length of bars} &= : S + 6 + 4 + 3 + 2 \\ &: S + 15 \text{ cm} \end{aligned}$$

It is a guide line and the minimum length.

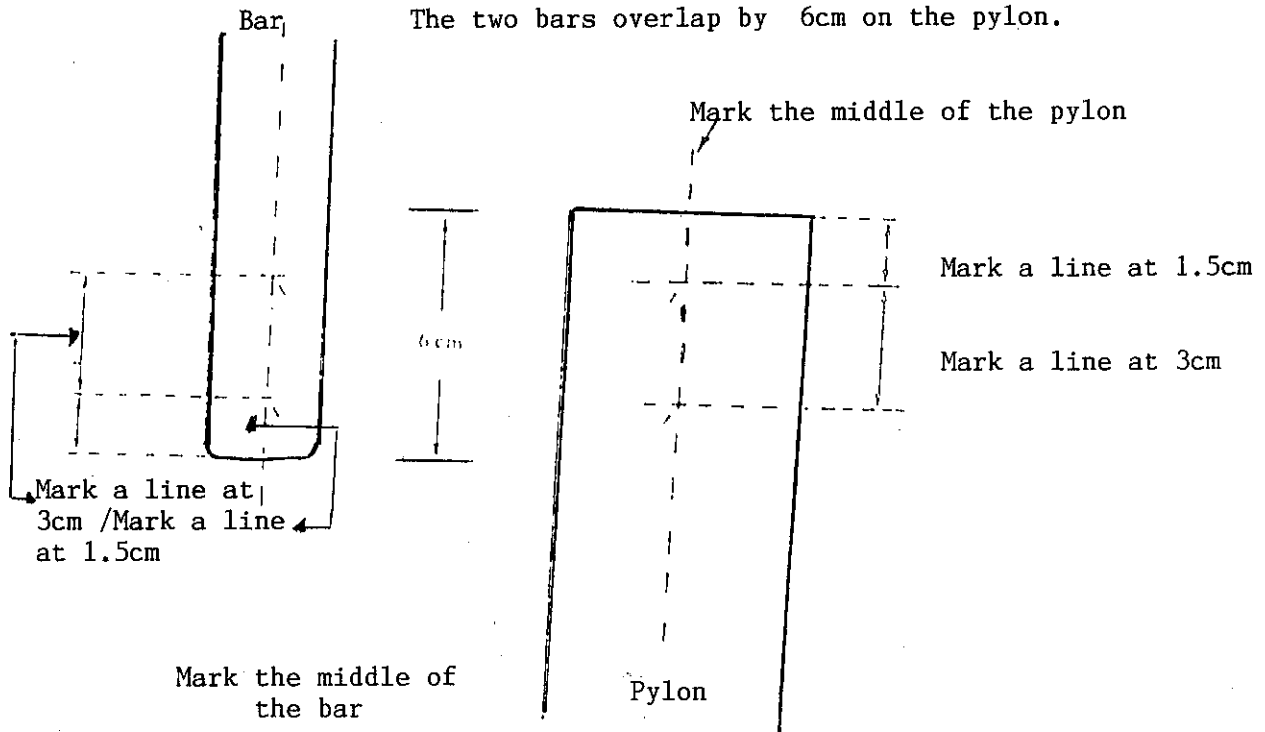


File the bars to round off the edges.

(43)

Piercing the Bars

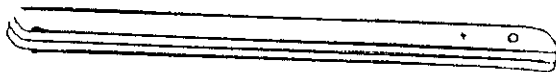
The two bars overlap by 6cm on the pylon.

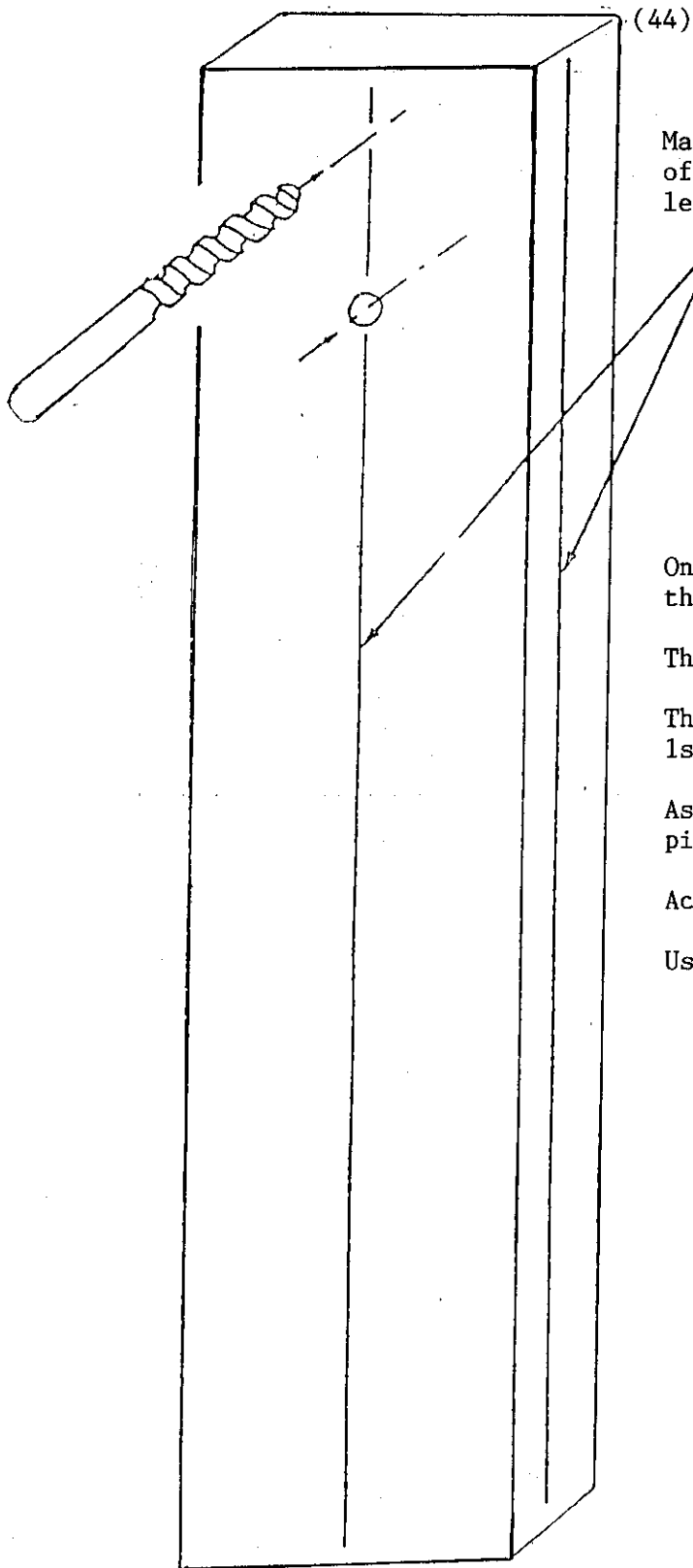


Pierce the bars at the same time on the points already marked.



Twist drill 4mm.
Twist drill 8mm.





Mark on the pylon a line in the middle of two of its sides. The line must extend the whole length of the pylon.

On one of these sides pierce two holes on the line. The holes must be of 8mm. diameter.

The first hole is 1.5 cm from the edge.

The second hole is 3cm from the middle of the 1st hole.

As a guide use the bars that have already been pierced (drilled).

Accuracy is important.

Use a hand drill.

In order to aid the fabrication keep the pylon square 6 x 6 cm. until you have finished.

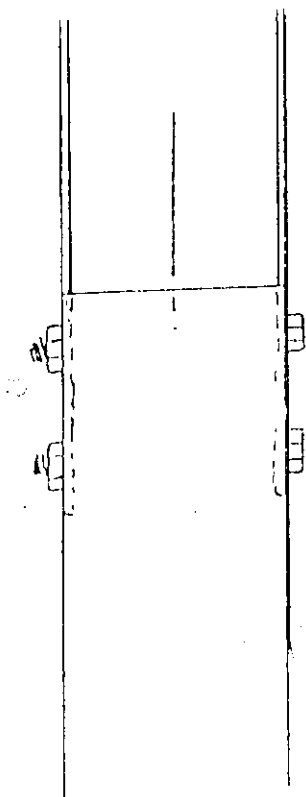
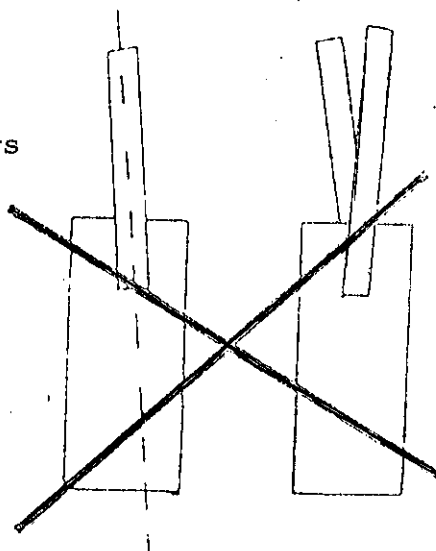
(45)

Joining Together

The joining of the bars to the pylon is made with 2 bolts 8mm diameter.

The two bars must be parallel

The alignment of the bars with the pylon must be correct.



It is possible to fit the bars to the pylon as shown in the two diagrams

Chapter 6

The alignment

- The alignment in front (frontal)
- The alignment at the side (sagittal)
- The length of the prosthesis

The alignment makes a big difference to the prosthesis .If not correct the amputee will never walk correctly.

The three following operations are carried out simultaneously.

(47)

Alignment (frontal)

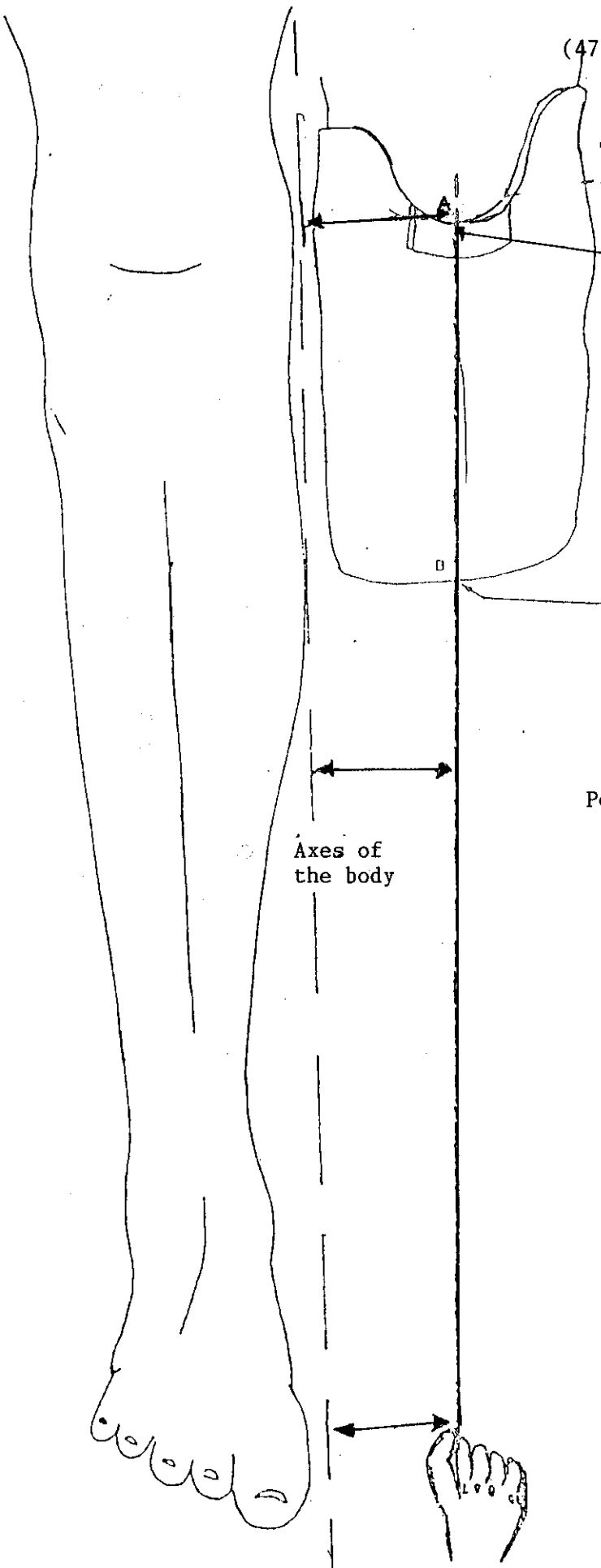
These two points must be marked on the front of the leather.

(A.) The middle of the patella

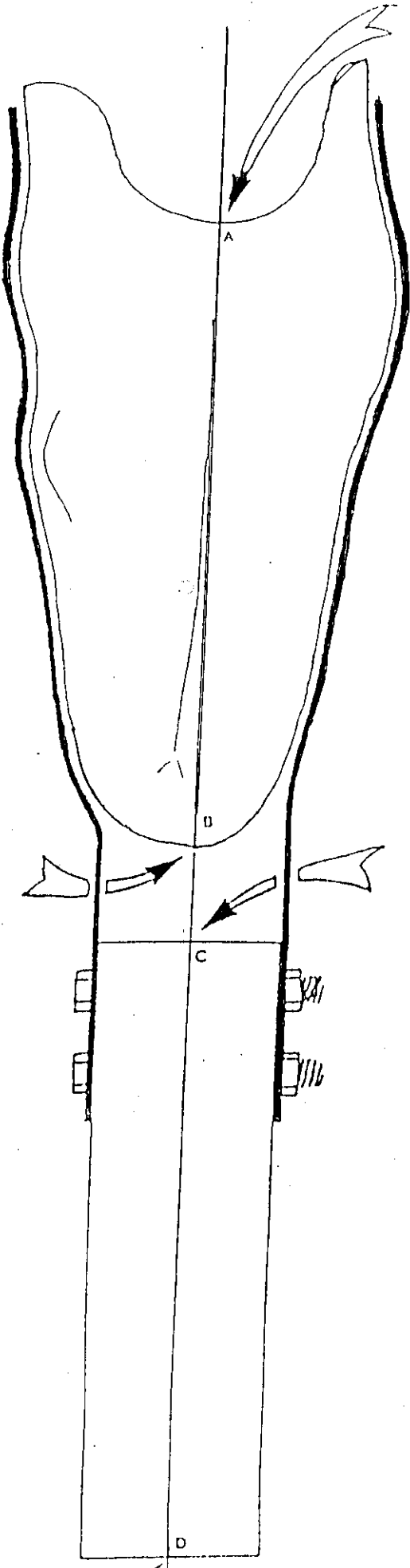
(B.) This point is found by passing a piece of string from the point (A) and parallel with the axis of the body.

Position: Sitting in a bunk the legs laying.

Axes of the body



(48)



The two points A and B on the leather are then joined to the two points C and D.

C and D are the two extremities of the line marked on the pylon.

The 4 points are aligned with the cord.

Careful:

This is carried out simultaneously with the two following operations.

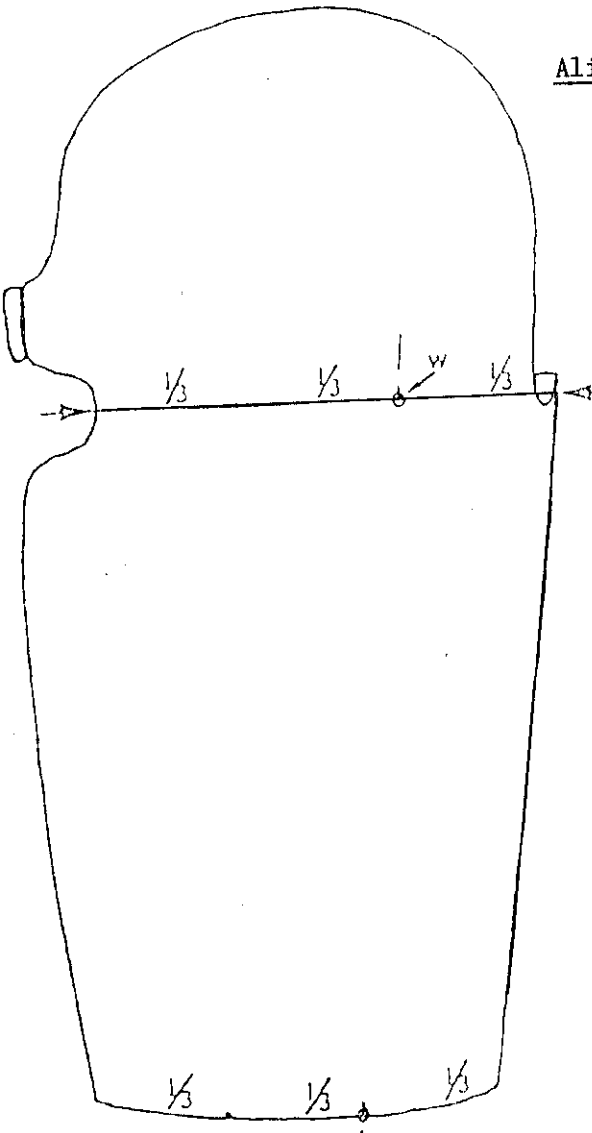
(49)

Alignment (sagittal)

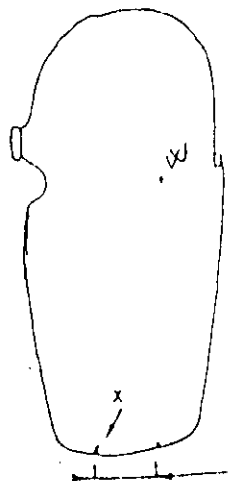
Mark on two sides

At the level of the weight bearing area just below the patella divide the side of the sleeve into thirds.

Mark the posterior third (w)



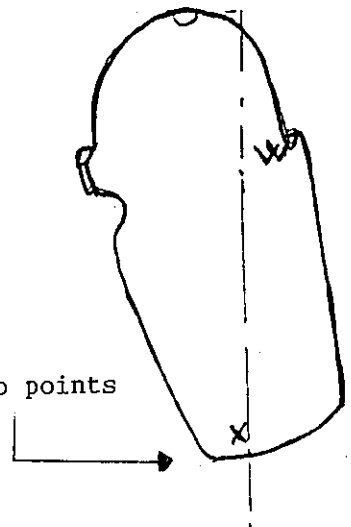
Divide the bottom edge of the sleeve into thirds also.
Mark the posterior third



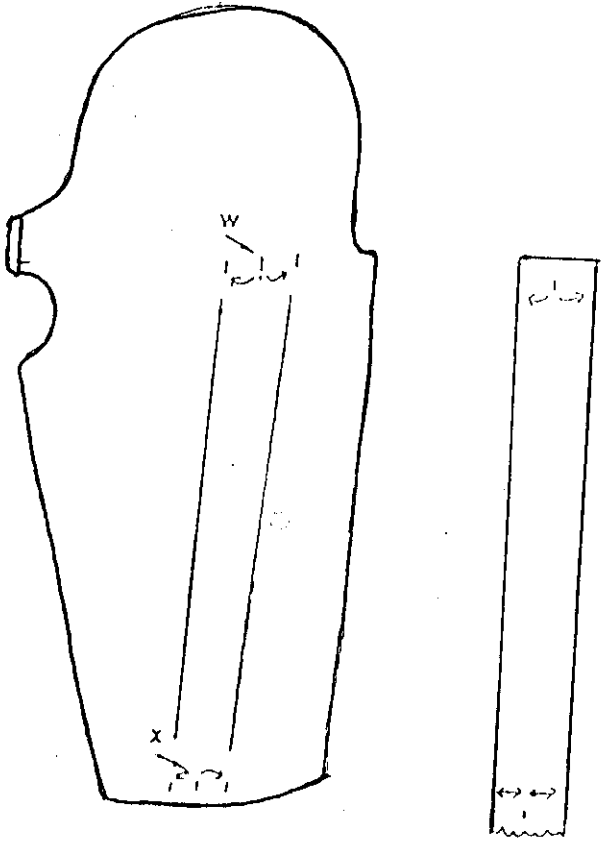
Measure 25mm towards the front. Mark x

This is just a guide for the angle of flexion (the shorter the stump the more flexion)

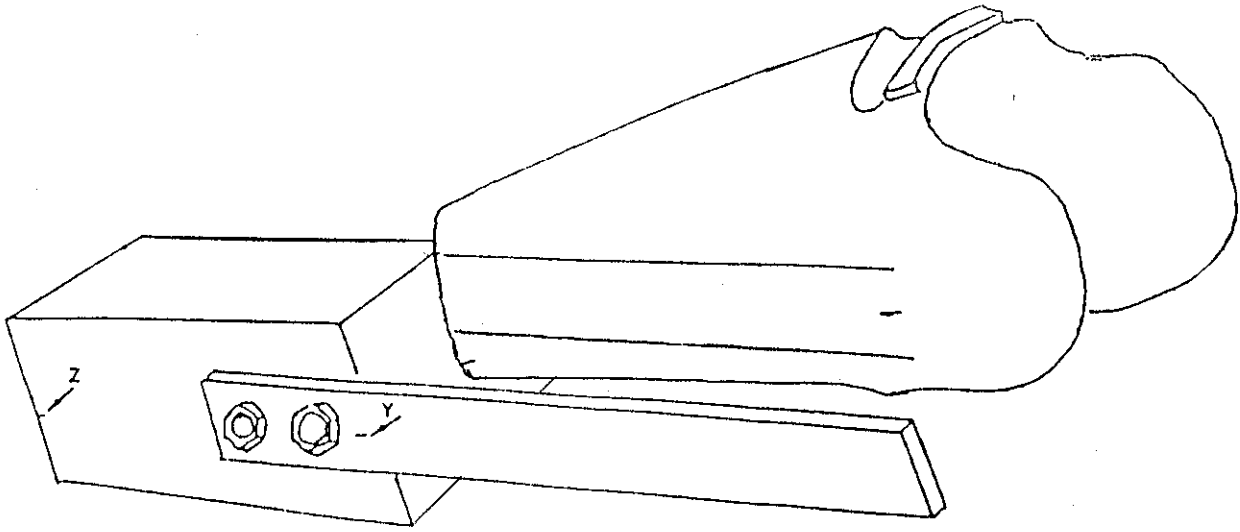
Join the two points together.



(50)



Mark on each side of the socket the points W and X
Mark the lines .The width of the bars.

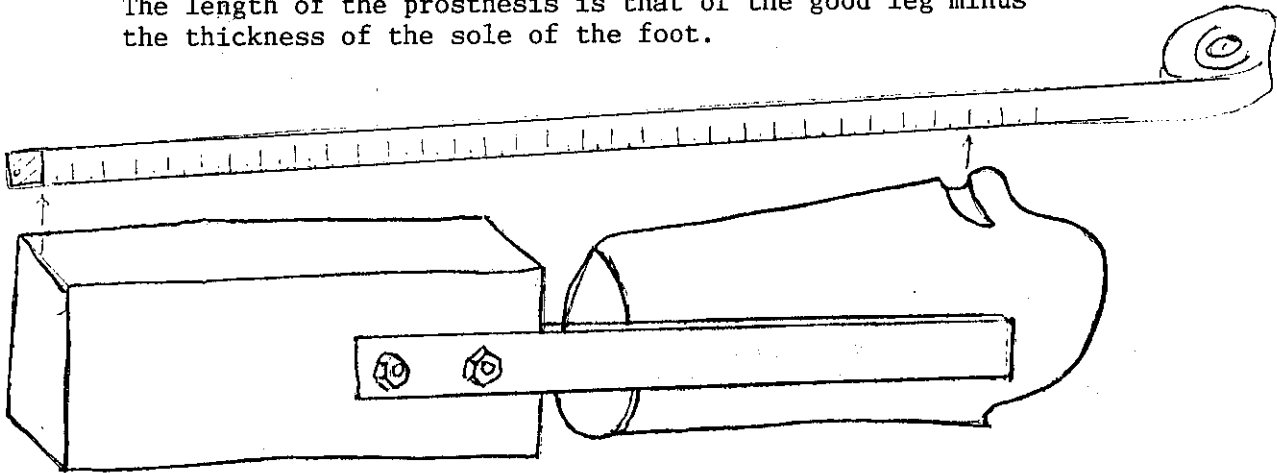


The bars are aligned on the lines.
Careful: This operation is carried on simultaneously with the following.

(51)

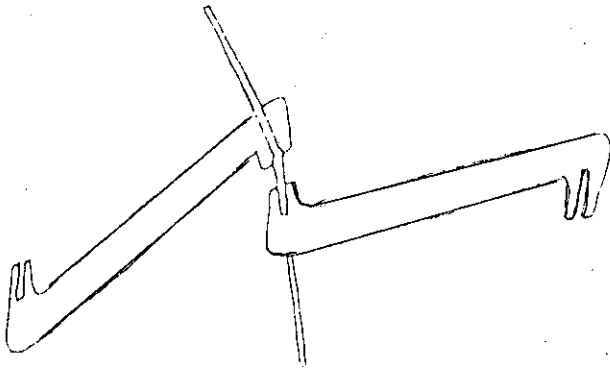
Length of the Prosthesis

The length of the prosthesis is that of the good leg minus the thickness of the sole of the foot.



This operation is carried simultaneously with the previous two.

Respecting these rules you must now twist (bend) the bars so that they follow the shape of the leather, they must be very close but not crushing the leather.



Twist bar pliers are used.

(52)

Chapter 7

The Encircling Bars

-Superior Anterior Bar

-Posterior Bar

Inferior Anterior Bar

(53)

Superior Anterior Bar (weight bearing bar)

It is house in the hollow on the leather.

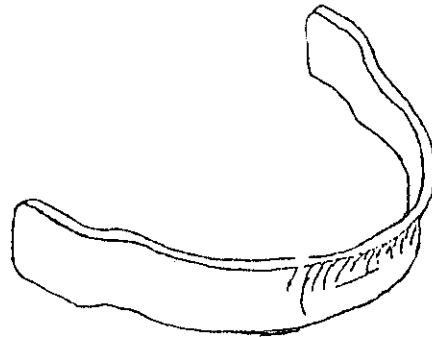
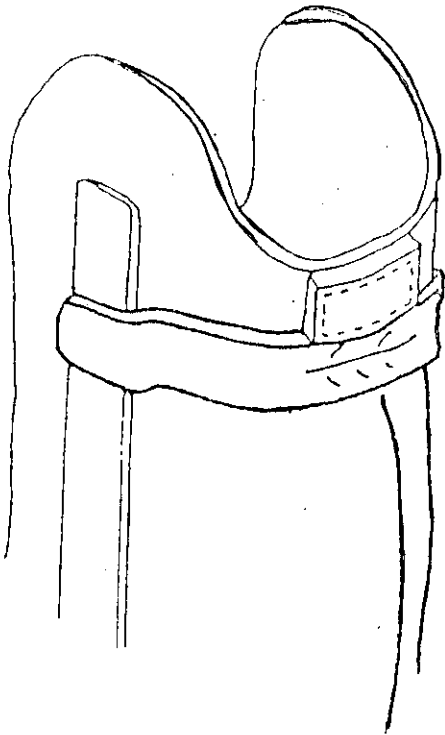
It is the weight -bearing bar.

Like the vertical bars these bars also follow very closely to the leather but never crushing it.

Measuring the length of the bar

Measure with a cloth or paper or tape measure.

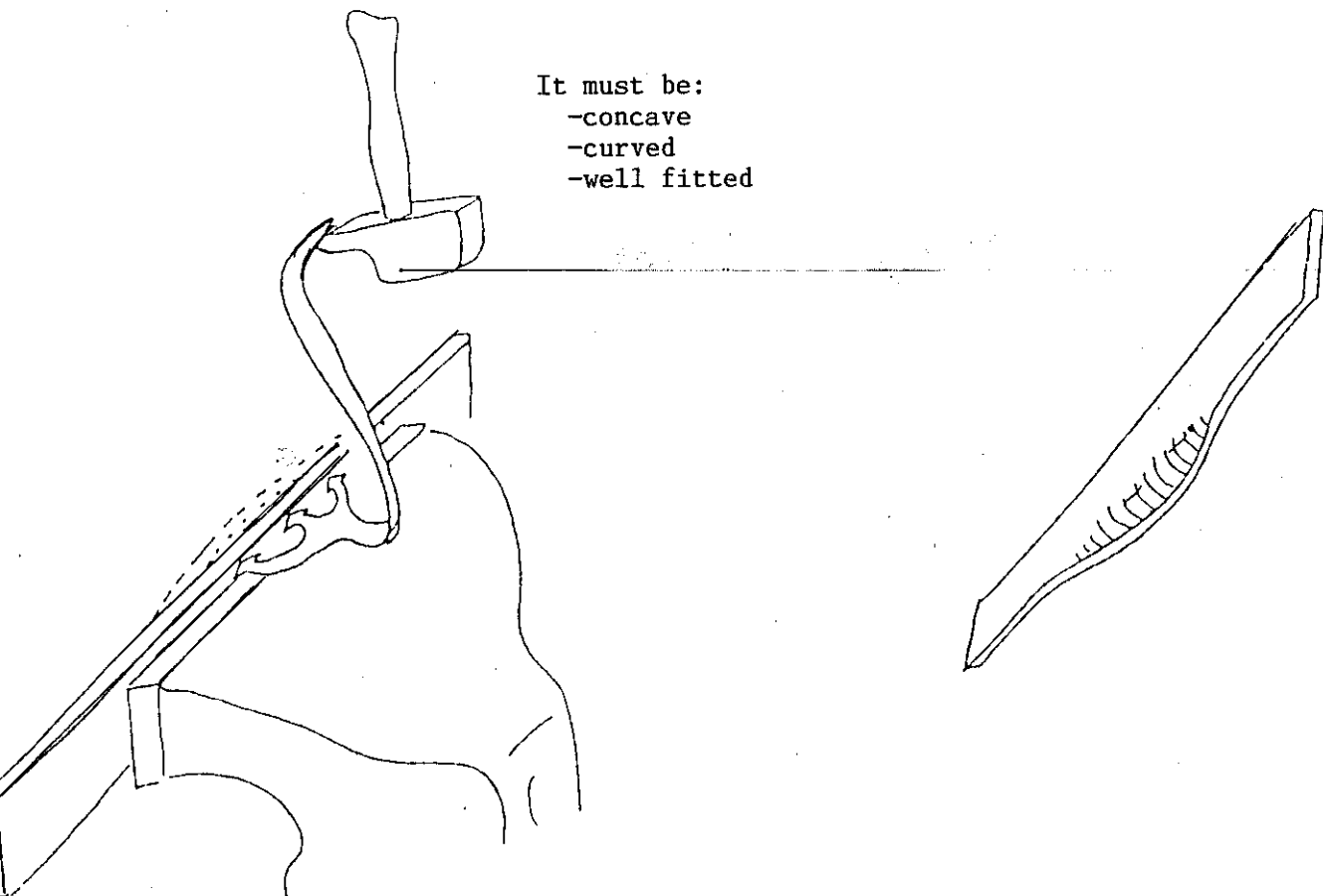
Measure from the posterior edge of one vertical bar to the posterior edge of the other passing in the hollow beneath the patella. The leather being already in place. Add 2cm.



(54)

The two superior horizontal bars are made out of the same steel as the vertical bars. Their width is about 1.5cm

How to make the first bar.

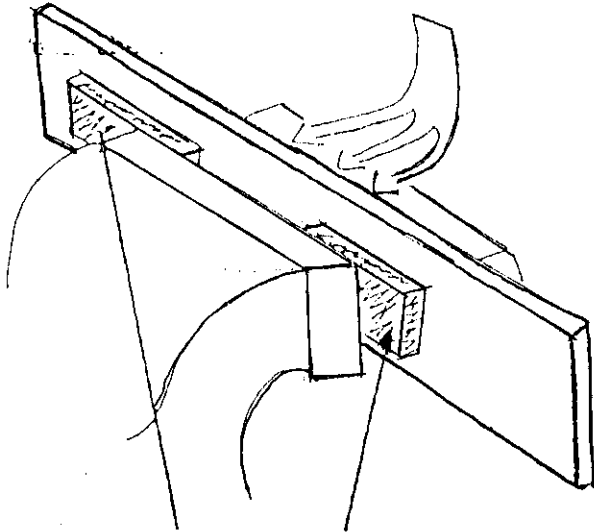


It must be:
-concave
-curved
-well fitted

Hammer one side of the bar.

(55)

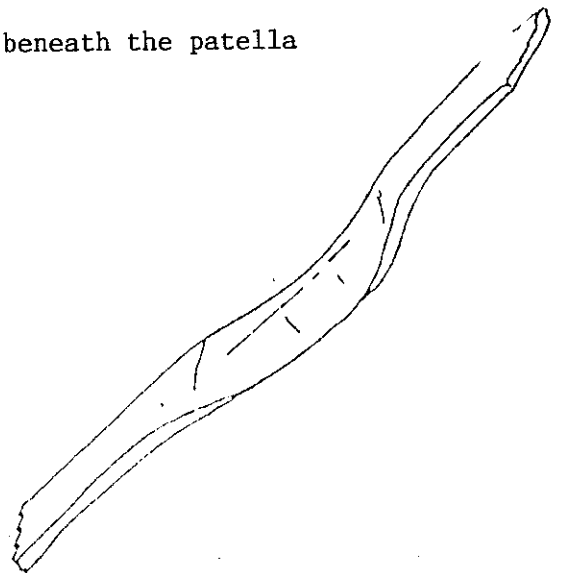
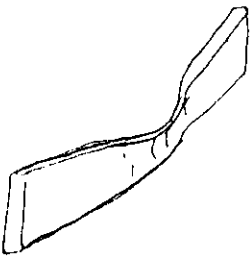
Turn the bar.



Hammer again

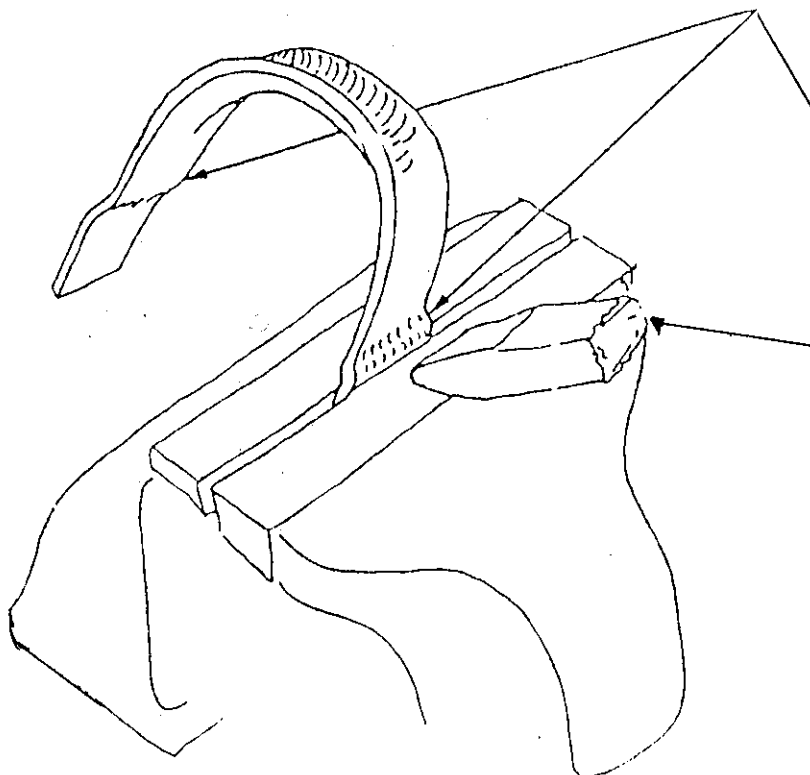
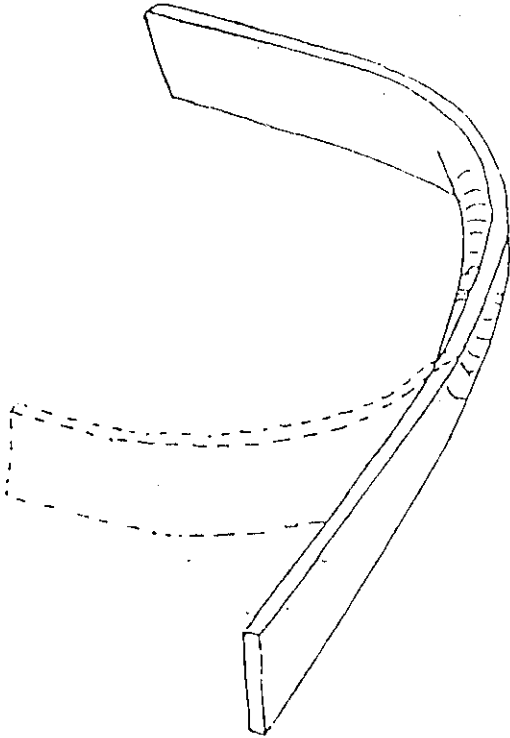
Place blocks

This bar must be well fitted into the hollow beneath the patella just under the first leather strip.



(56)

Curve the bar

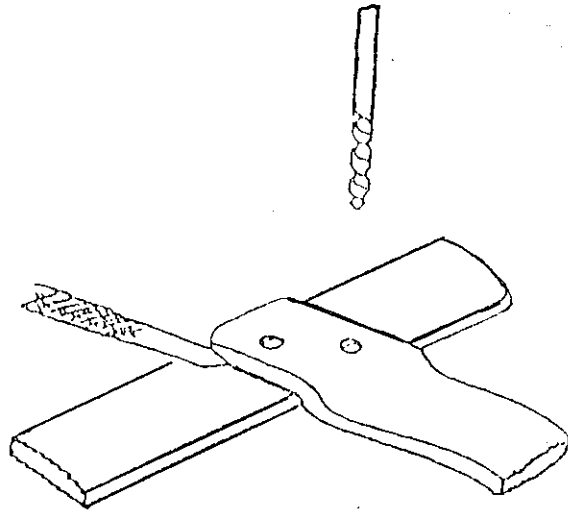
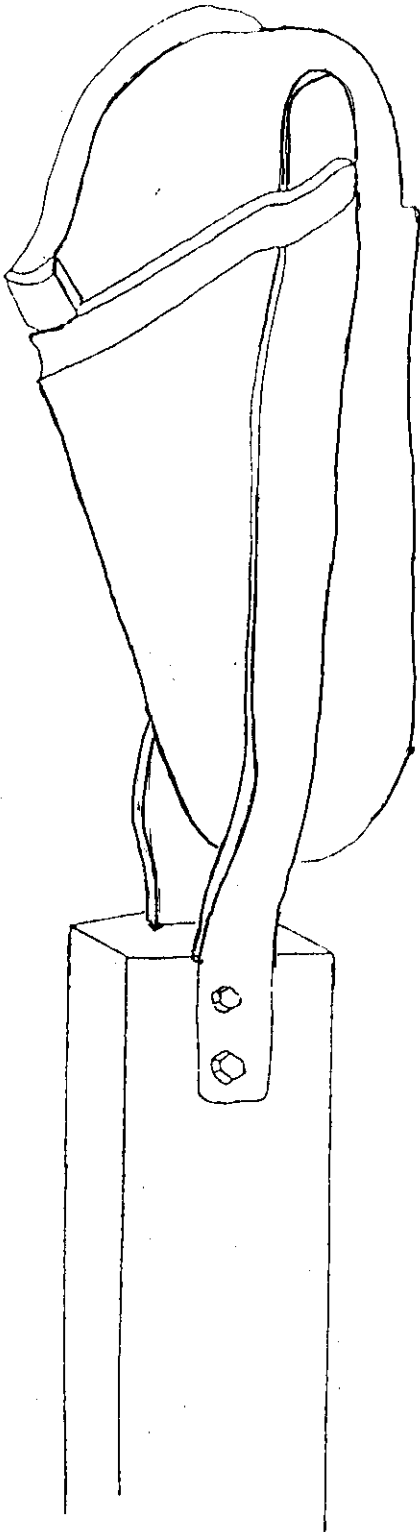


Mark two steps

This enables the bar to be attached to the outside of the vertical bars.

Use a tool with a rounded end.

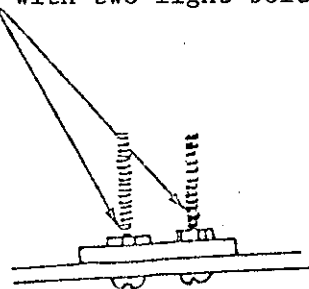
(57)



Mark the position of the superior bar on the vertical bars.

Pierce two holes 4mm diameter. These holes are diagonally placed.

Fix temporarily with two light bolts and knots.



Fixing the leather to the bars with these bolts allows the amputee to try on the prosthesis.

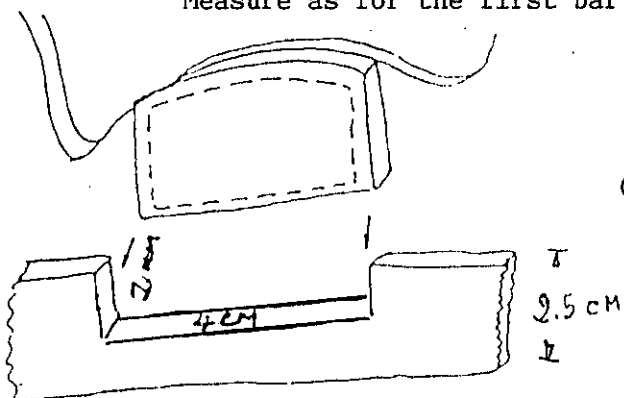
(58)

Posterior Horizontal Bar (anti rotation bar)

Made out of steel 2.5cm wide = 2"

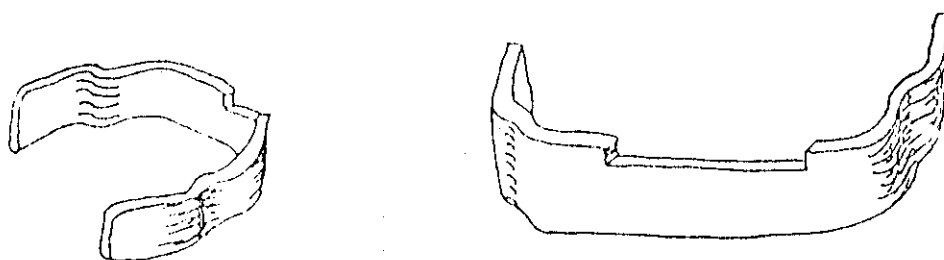
Position to prevent rotation.

Measure as for the first bar.



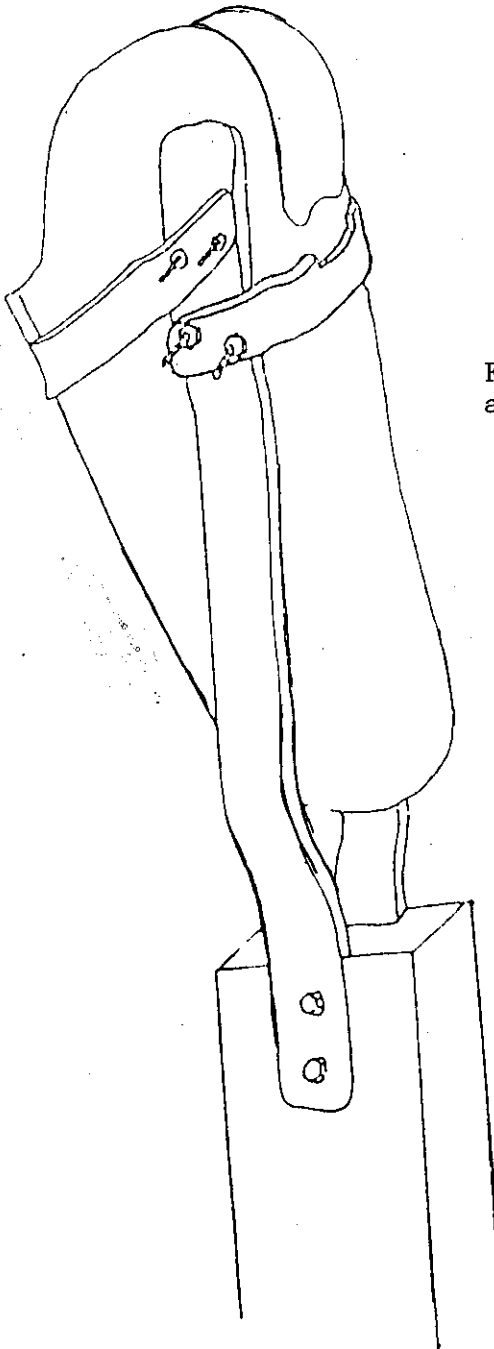
Cut a groove of depth 10mm and length 4cm.

In this groove is fitted the 2nd leather strip. Position well these, then prevents rotation of the sleeve.



Made in a similar way to the 1st bar but is placed behind the sleeve.

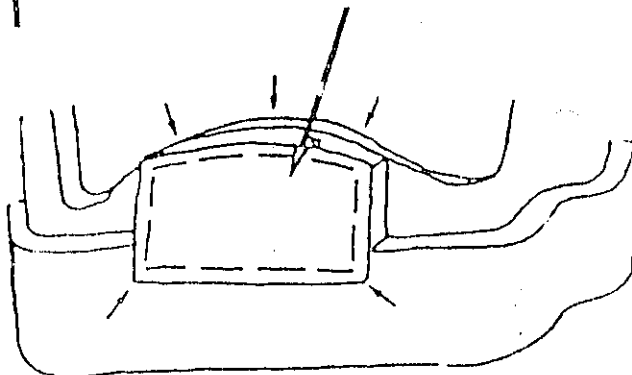
(59)



Fix the second bar with the same bolts and knots as the 1st bar.

Thus, one can calculate the size of the 2nd leather strip.

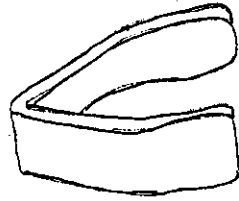
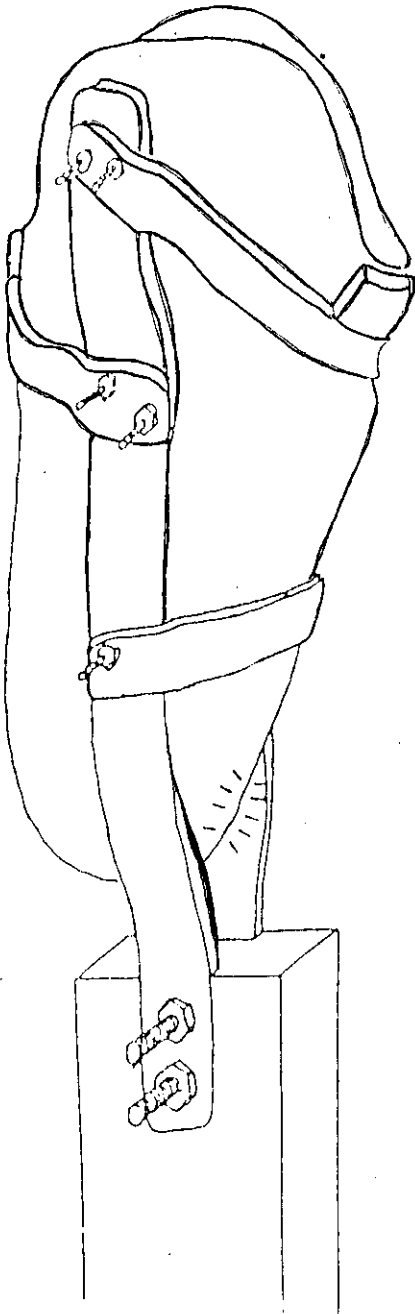
It must fit well into this groove in the bar and follow the superior border of the sleeve.



(60)

Inferior Anterior Bar (to limit flexion)

- Made out of steel or metal.
- Positioned to limit the amount of flexion of the stump.
- Surrounds the two sides of the tibia but must never press on the tibial crest.

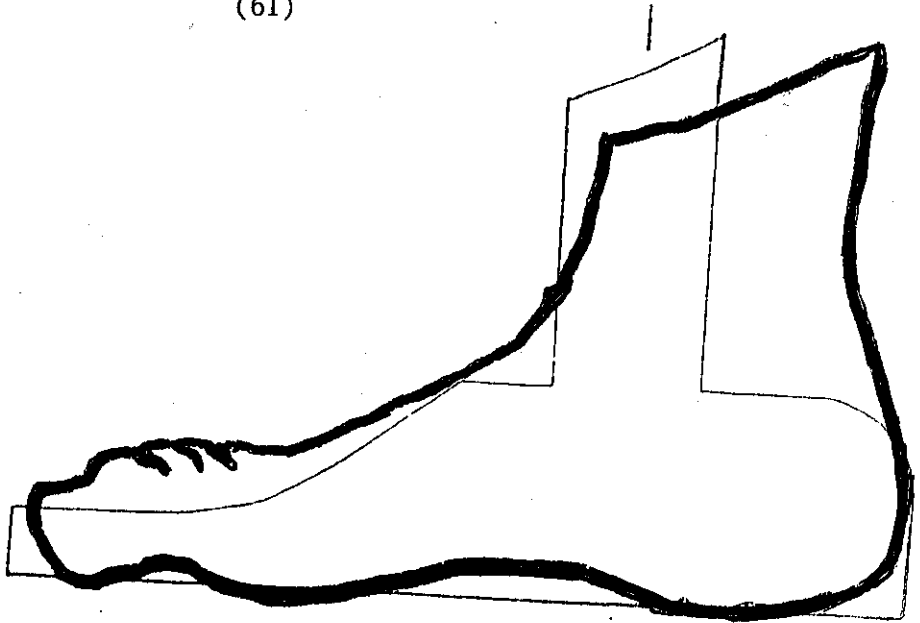


Fix with two light bolts and knots.

Careful: This bar MUST NOT be placed near the end of the tibia. This will cause pain.

Try on the prosthesis

(61)



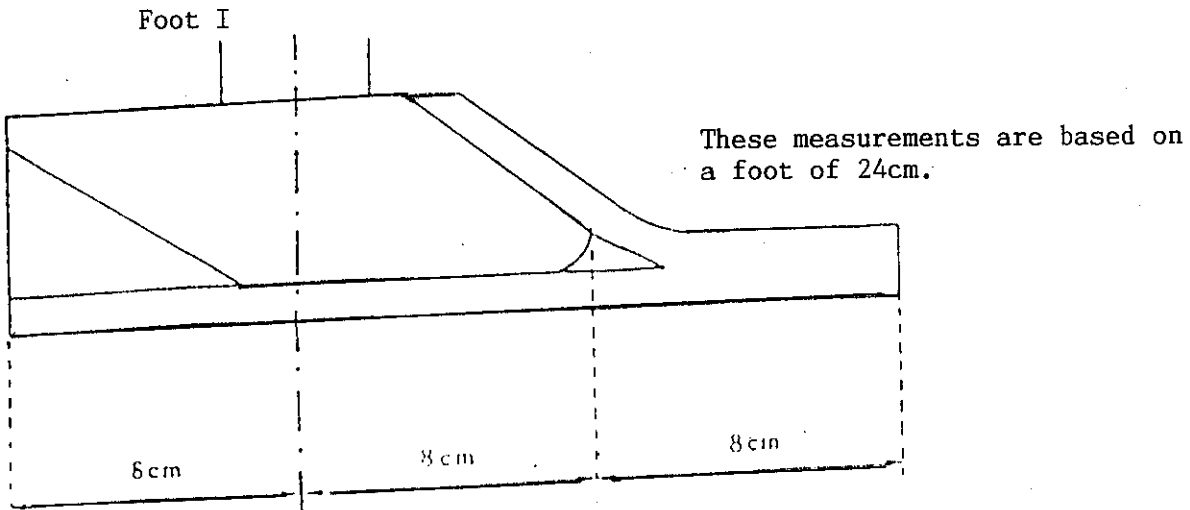
Chapter 8

The Foot I, II, III

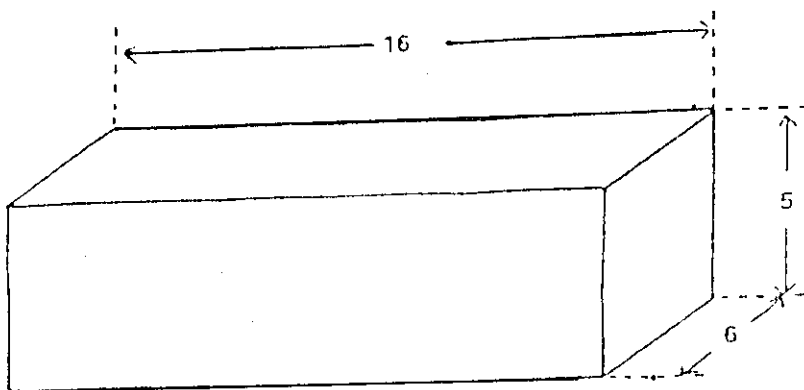
- The measurements
- The Piercing
- The Cutting Out
- The Joining Together

(62)

The Measurements

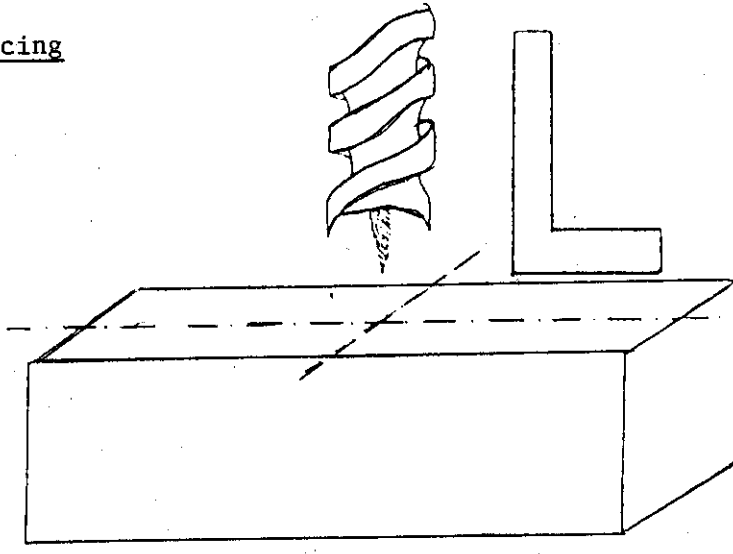


The foot is made out of wood ,tire (car),rubber sponge.
It is divided into thirds.
The length of the wood is $\frac{2}{3}$ of the total length.Thus 16 cm.
The height of the wood is 5cm.
The width is 6cm.



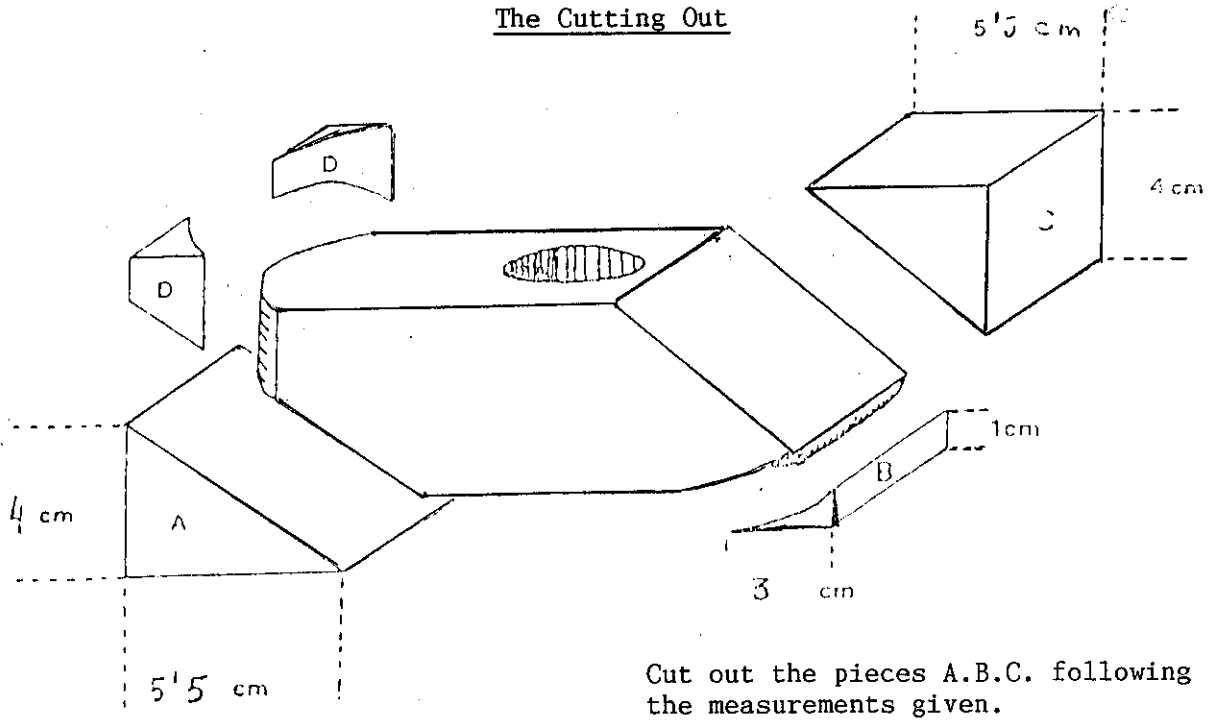
(63)

The Piercing



Calculate the middle of the wood.
Pierce a hole using a twist drill of 4cm diameter.
Careful: Pierce the hole straight.

The Cutting Out

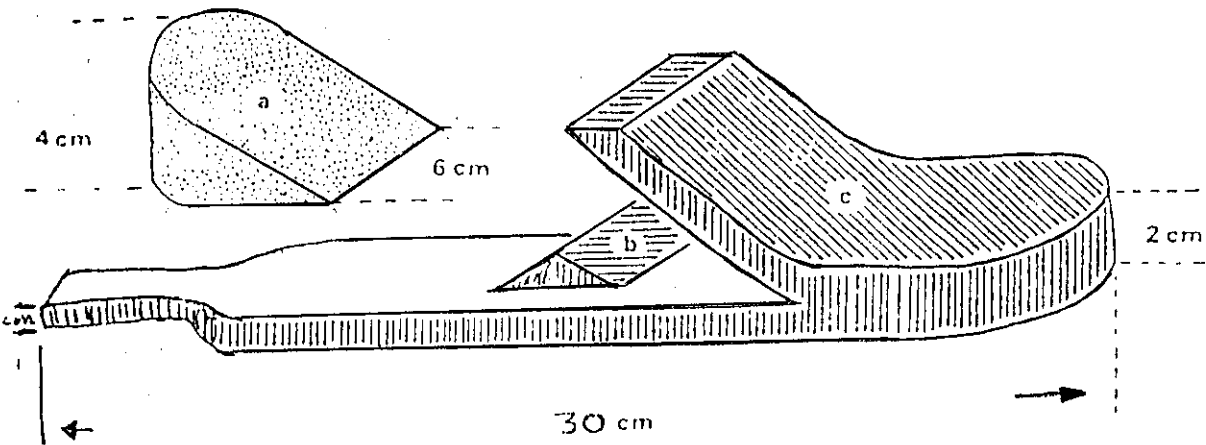


Cut out the pieces A.B.C. following the measurements given.

The two pieces D are filed down to round off the edges.

(64)

The Joining Together

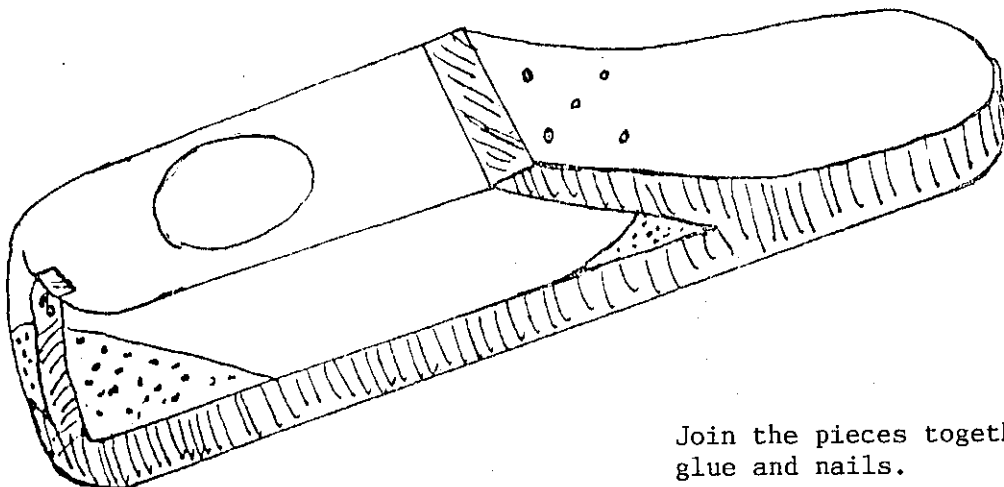


Cut out:

A corner in thick rubber sponge 4cm x 6cm (a)

A little triangle in the tire or rubber sponge. (b)

A sheet of tire 30cm long, 1cm thick to go under the wood, and 2cm thick for the front. (c)



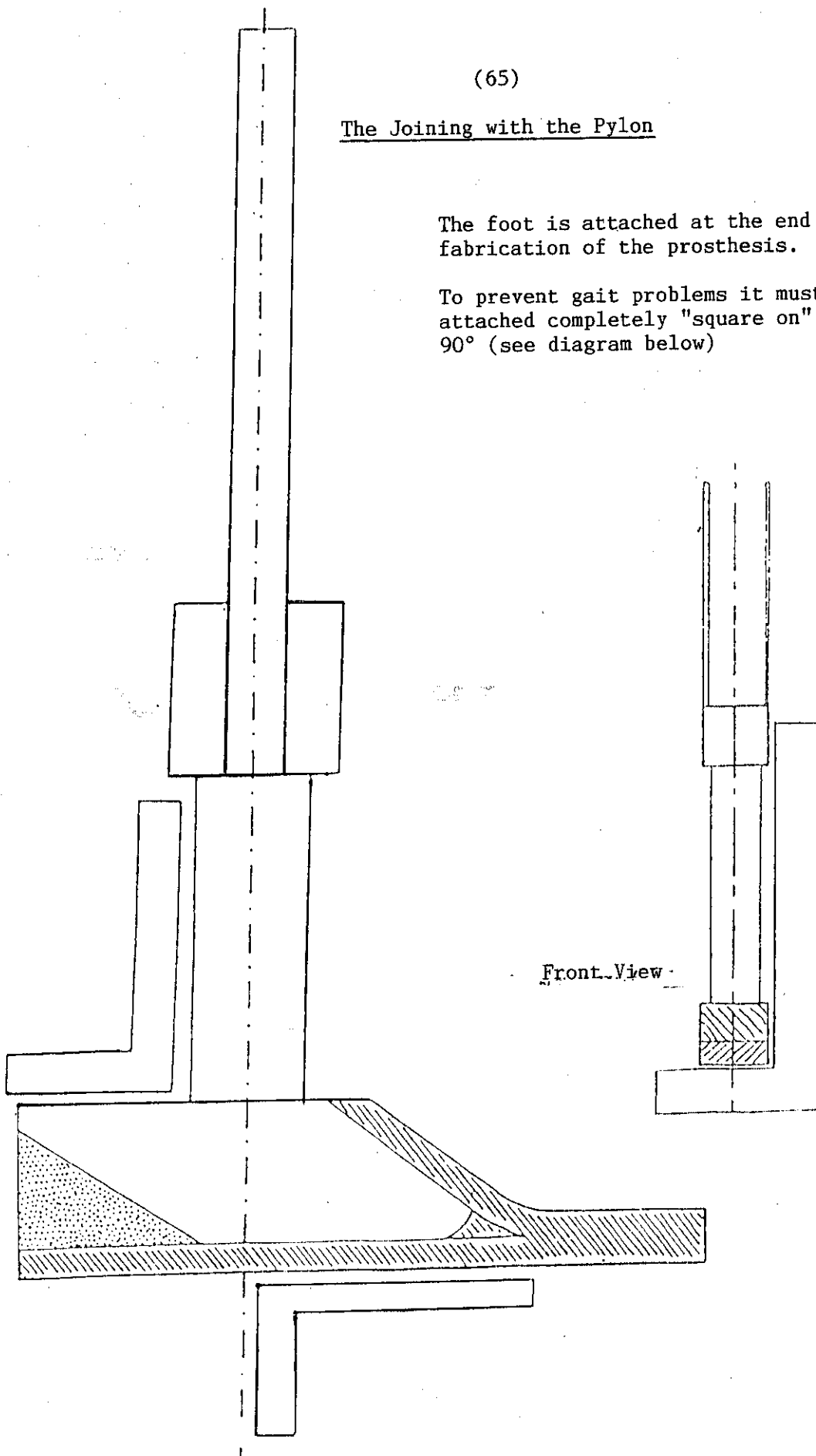
Join the pieces together with glue and nails.

(65)

The Joining with the Pylon

The foot is attached at the end of the fabrication of the prosthesis.

To prevent gait problems it must be attached completely "square on".
90° (see diagram below)



Front View

Side View

(66)

Chapter 9

The Belt and the Finishing
of the Prothesis

- The drilling
- The Shapening of the pylon
- The Rivets
- The Belt
- Fitting of the Foot

(67)

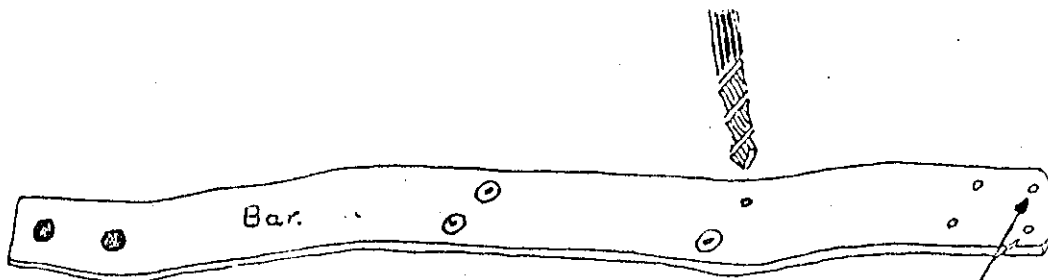
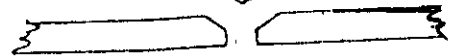
Drilling

-Pierce the top of each vertical bar, two holes to attain the belt.



Drill holes for the rivets in the inside of the vertical bars.

Twist-drill 6mm. (16 holes eight on each side).

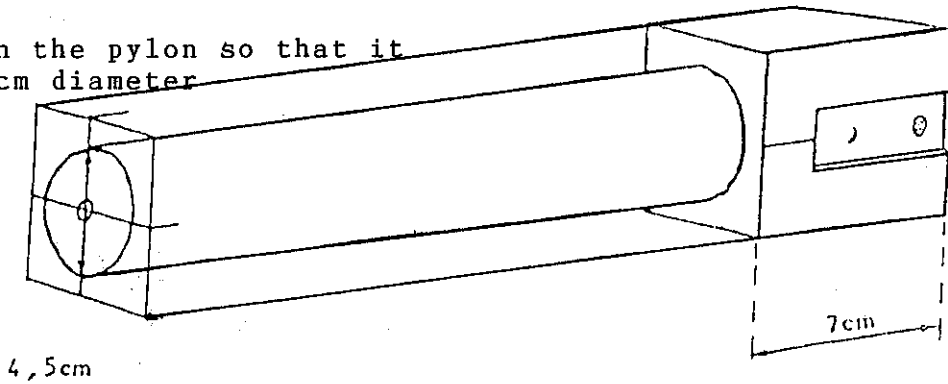


Two extra holes to attach the belt total (

(68)

The Sharpening of the Pylon

Sharpen the pylon so that it is 4.5cm diameter



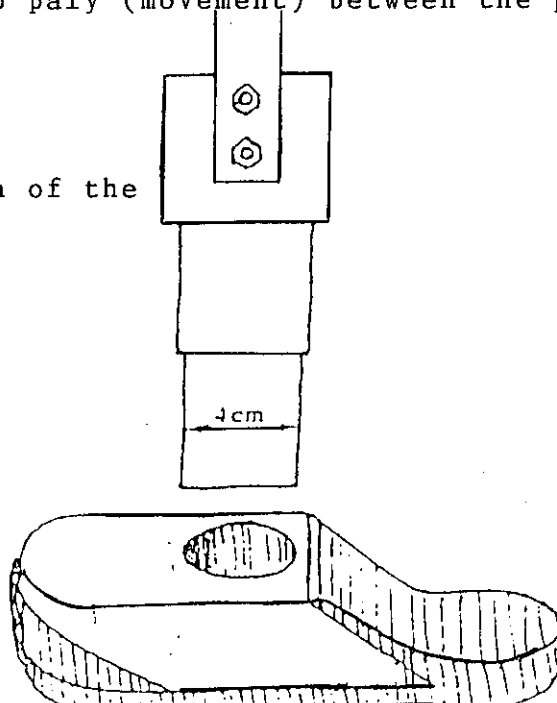
Leave 7cm at one side.

Sharpen the very end of the pylon so that it has a diameter of 4cm. to fit into the hole in the foot.

There must be no paly (movement) between the pylon and the foot.

Important:

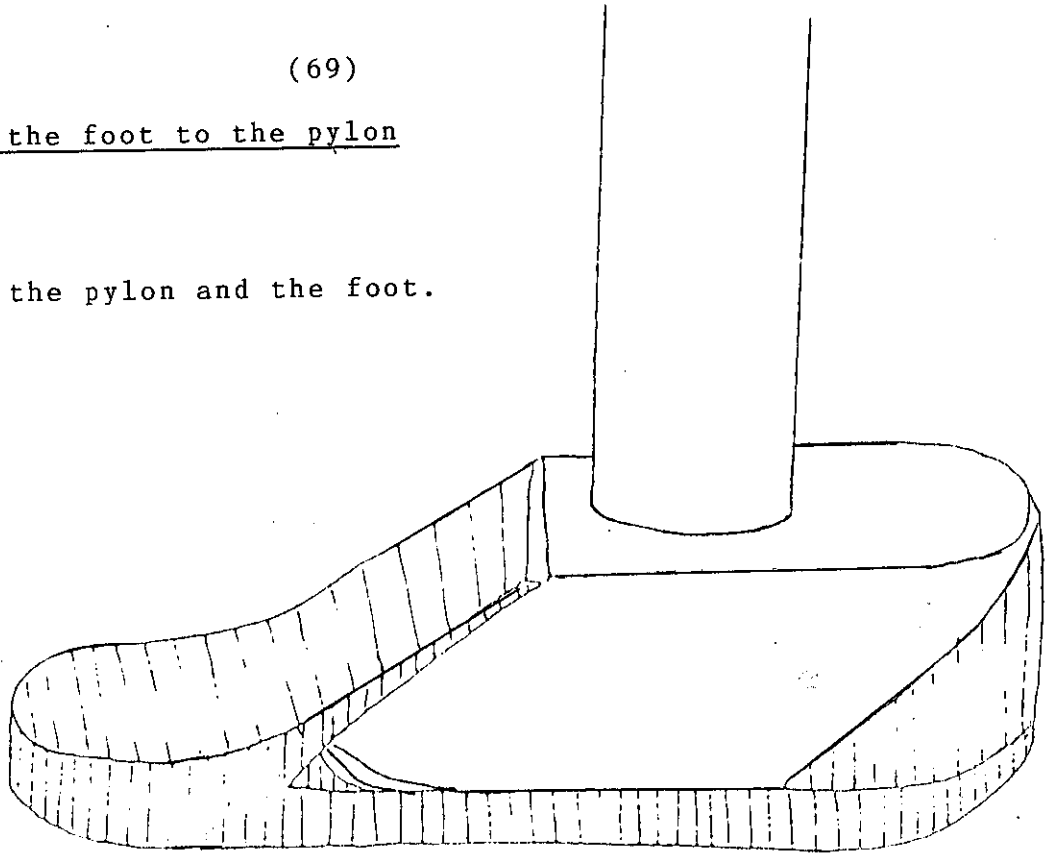
Check the length of the prosthesis



(69)

Fixing of the foot to the pylon

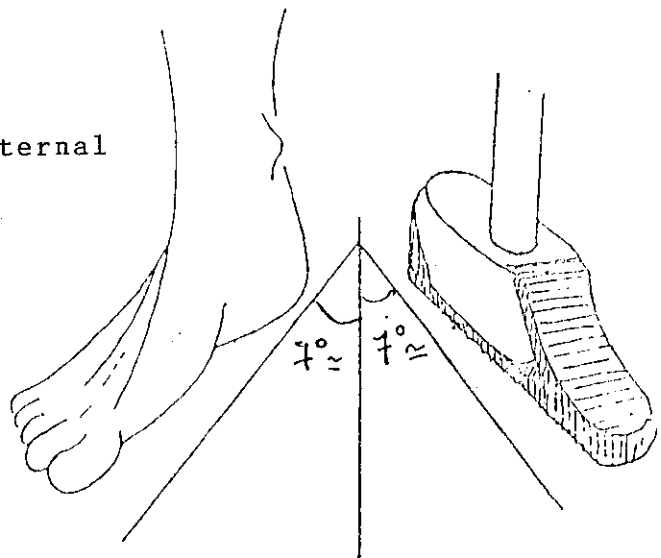
Fix the pylon and the foot.



—Orientate the foot in slight external rotation.

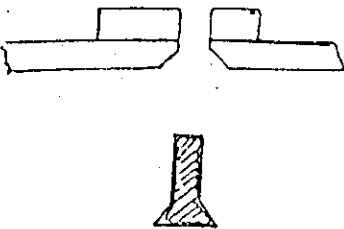
—Compare with other foot.

—Glue the foot.



(70)

Riveting



The rivets are a very important part of the prosthesis, its strength depending on good riveting.



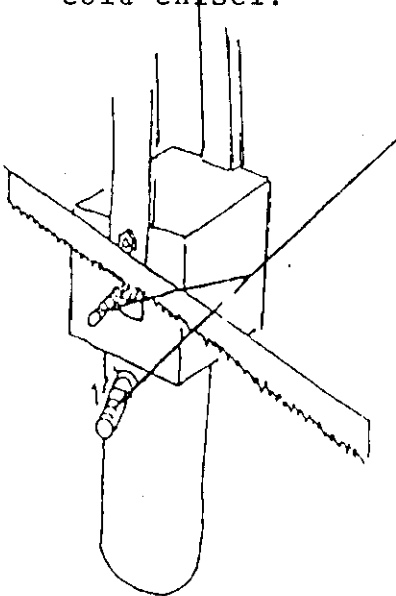
The rivets are made with nails of 4mm.

The horizontal and vertical bars must be well fitted together.

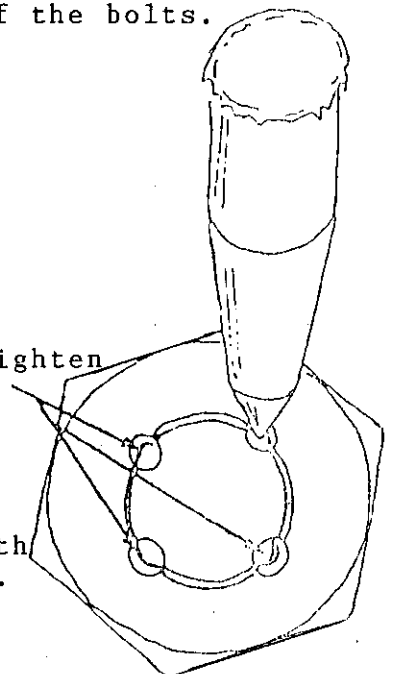
Round all the end of the rivets, avoid crushing.



If the rivets are placed incorrectly they can be removed with a cold chisel.



Saw off the unnecessary parts of the bolts.



Point cap and tighten

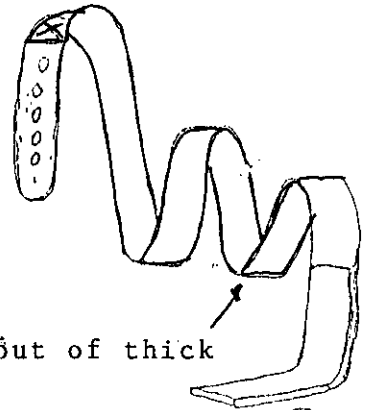
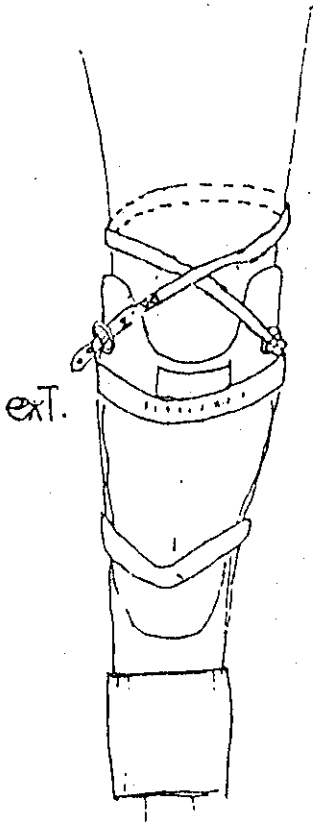
NEW Jan. '86

The rivets are now made not with nails but with the same material as the buckles for the belt. That is wire with a diameter of 4mm.

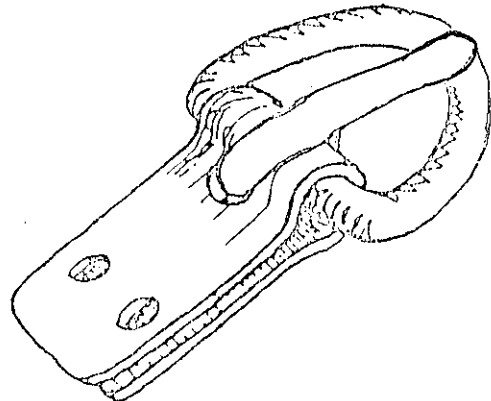
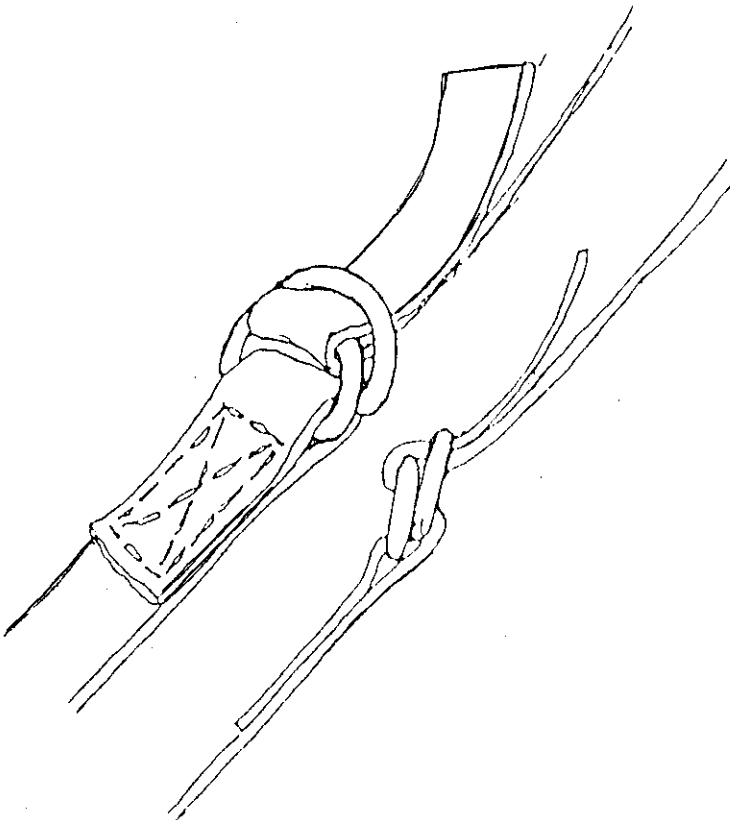
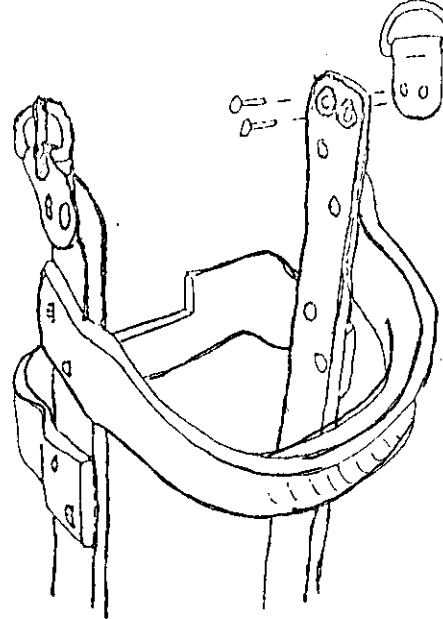
(71)

The Belt

The prosthesis is held in place
• by a belt passing in a figure of
8 round the knee.



Belt made out of thick
cotton.



Chapter 10

The most obvious faults:

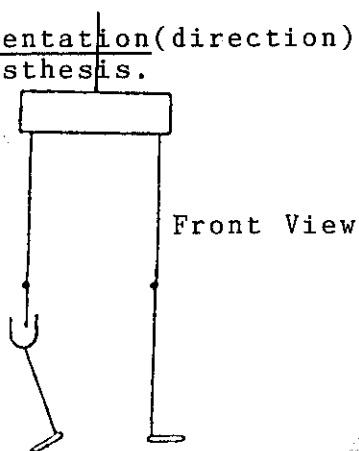
- Orientation of the prosthesis
- Length of the prosthesis
- The Setting Square on the foot
- Rotation of the foot
- Pain

This chapter deals with some of the most obvious faults ,but there can be many more.

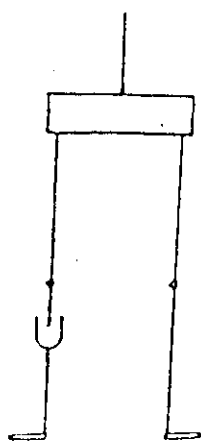
Obvious Faults

Some obvious faults showing immediately when the prosthesis is tried on.

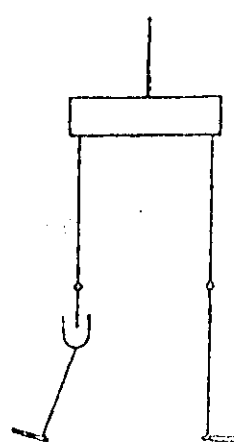
Orientation(direction)of the prosthesis.



BAD.
Prosthesis orientated inward



GOOD
Good orientation



BAD.
Prosthesis orientated outward

Side View



Prosthesis orientated backward



Good orientation



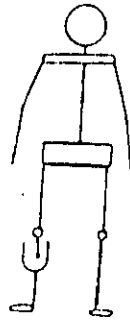
Prosthesis orientated forward

(74)

Length of the prosthesis



Too high

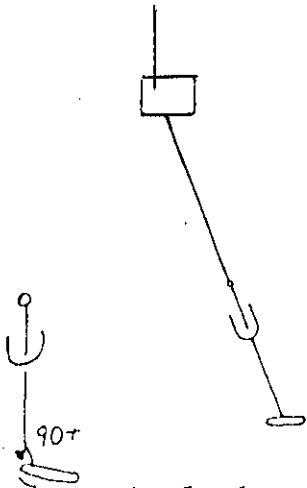


Correct height



Too short

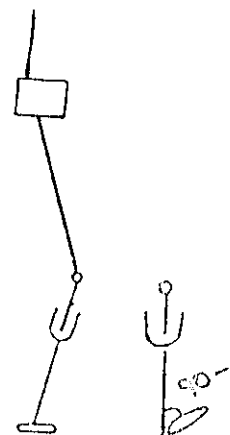
The setting square of the foot.



Angle between the foot and pylon more than 90°



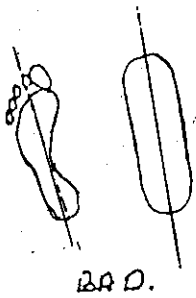
Correct



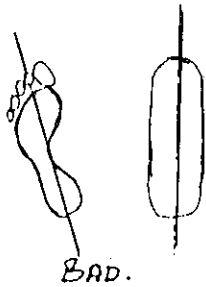
Angle between the foot and pylon less than 90°

Obvious Faults with the Foot

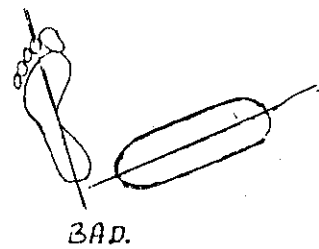
Rotation (turning) of the foot



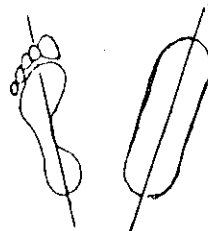
Internal rotation



Too straight



Too much external rotation



Correct amount of rotation (external)

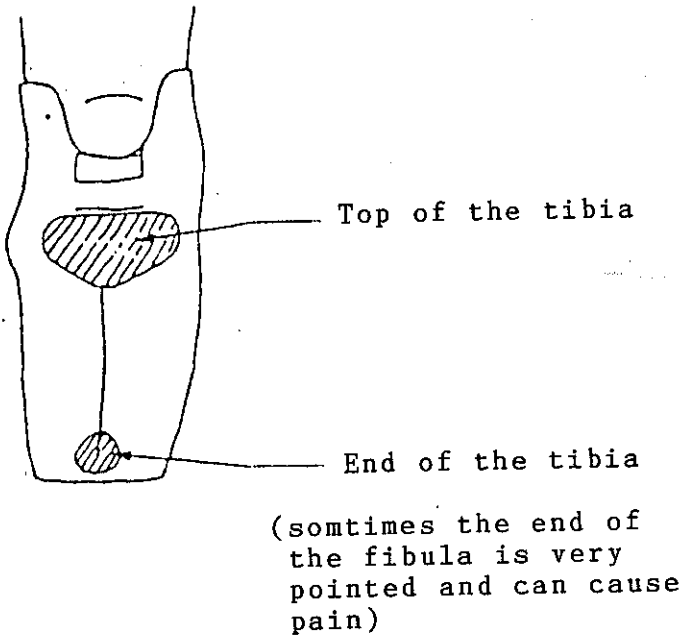
To obtain the correct position for the foot LOOK AT THE POSITION OF THE OTHER FOOT.

(76)

Pain

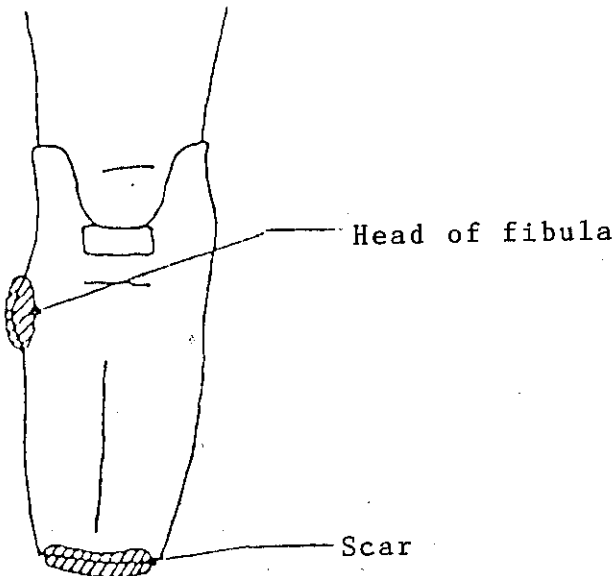
Possible places of pain

Possible causes of pain



- leather too tight
- stump in a bad position

- pressure from the leather
- pressure from the inferior anterior bar
- flexion of the sleeve

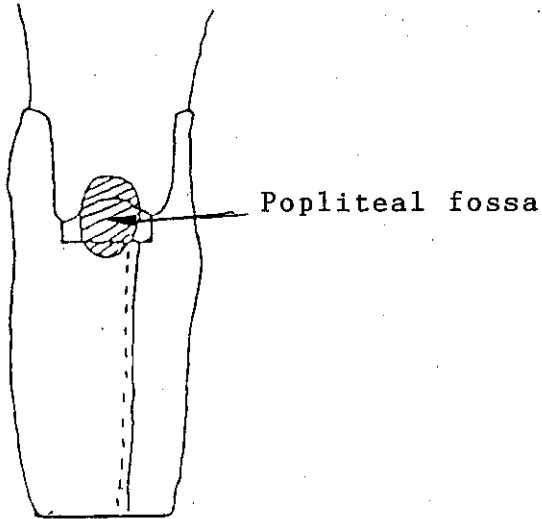


- leather too large, piston action of the stump in the sleeve. Plus the weight bearing area and the other areas are not in their correct places in the sleeve

- stump not correctly in sleeve
- weight or pressure on the scar

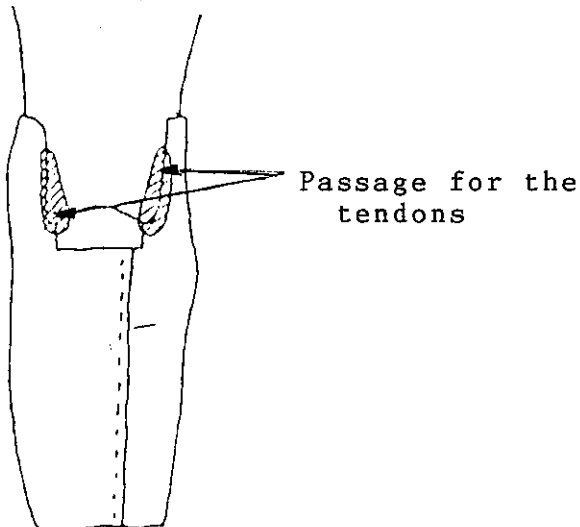
(77)

Possible places of pain



Possible causes of pain

- leather too high
- counter weight bearing area too deep
- leather or stump in a bad position



- tendons not enough space (correct leather)
- leather too tight
- stump in a bad position

Conçu et édité par

Centre de formation

**HANDICAP
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