CAST MODIFICATION

CHAPTER 26

MISCELLANEOUS CAST PREPARATION

NARROWING HEELS

This is a common remedy because plaster casting is notorious for having one major flaw: generally the heels are too roomy. Sometimes it is length, sometimes it is width and sometimes it is both.

I think the major culprit is human physiology differences between the sitting body shape and size, the standing body shape and size, and the walking body shape and size.

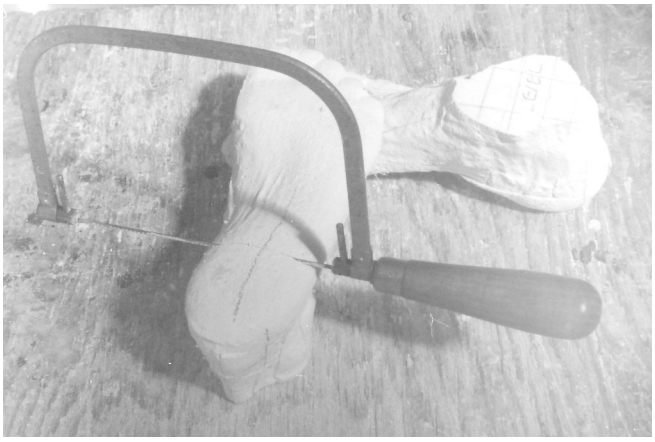
It is easier to apply heel narrowing, whenever you suspect it is necessary, than to have to take in side seams or whole heels after the footwear is made.

I can't remember narrowing a heel and then finding it couldn't be fixed with a simple stretching.

1 Here are some simple tools I built to hold up casts when checking vertical alignment etc. Sometimes little wedges under the soles of casts are not enough.

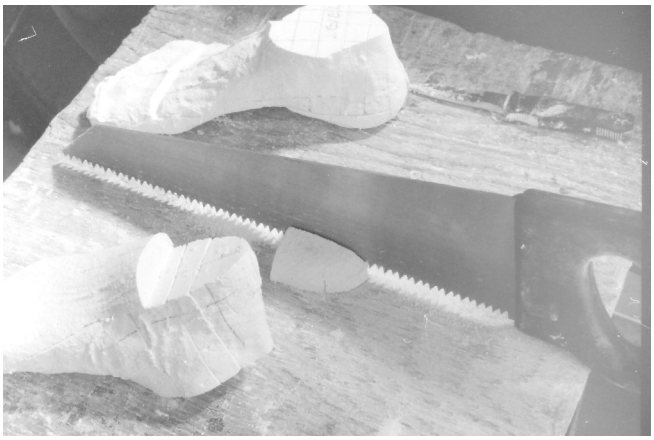
2 Ditto.

3 This set of casts needs the heels narrowed on the bottom. Alignment marks are placed on the bottom and sides of each cast.



4 A 10pt. coping saw is a good tool to cut from the bottom of the cast down to the horizontal cut.

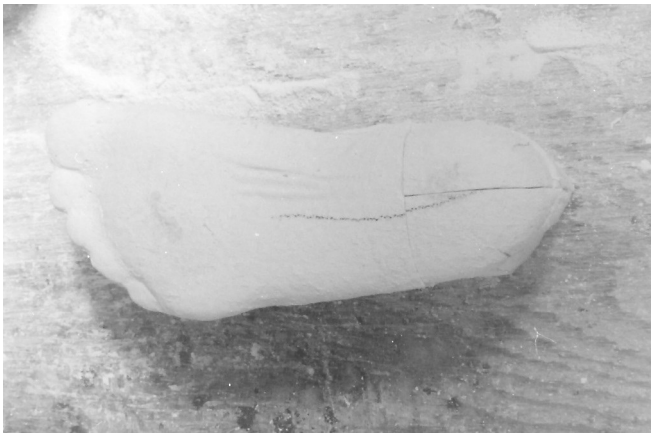
5 The heel piece comes off.



6 Using a drywall saw to narrow the heel piece. If necessary, make two cuts depending on the thickness of the blade and the desired amount of narrowing.

7 Putting glue on the parts.

8 Putting glue on the cast.

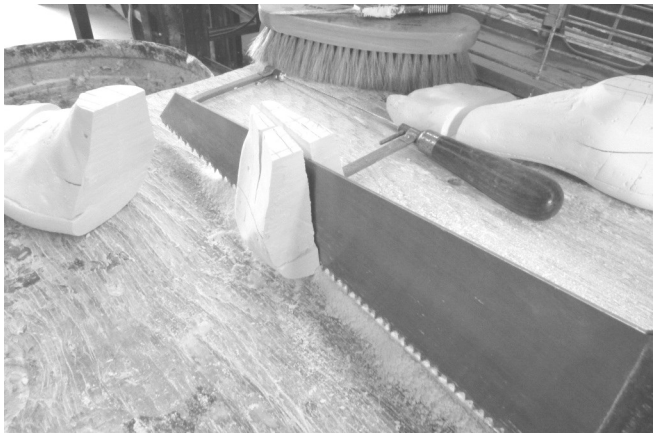


9 Aligning the heel parts to the marks on the bottom of cast

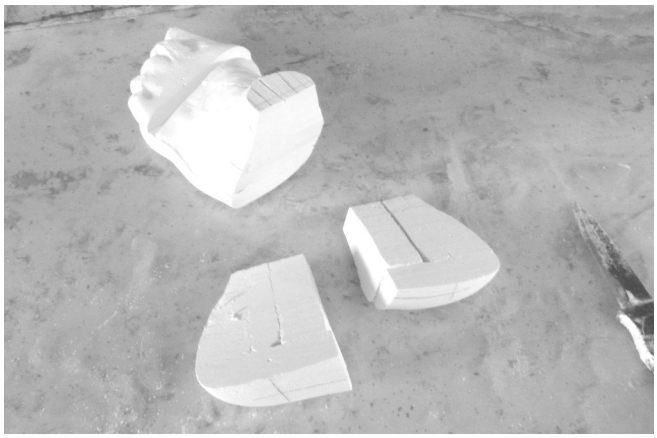
10 Aligning the heel parts to the marks on the side of the cast.

11 Aligning the heel parts to the marks on the side of the cast.

12 Another heel narrowing, but this time the whole heel is narrowed. Therefore, the saw cuts all the way through the casts.



13 Ditto.

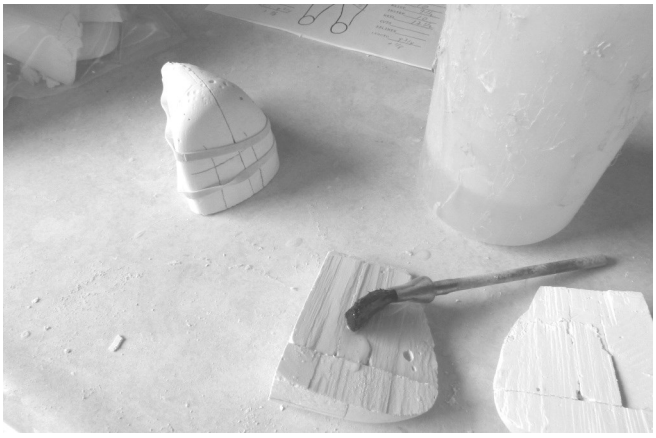


14 Ditto.

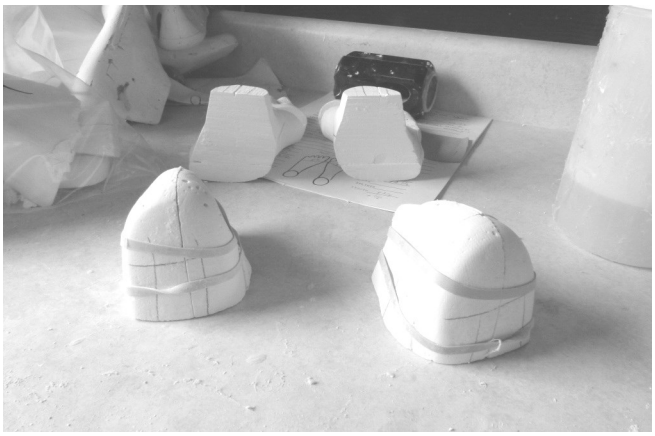
15 Ditto.

16 Ditto.

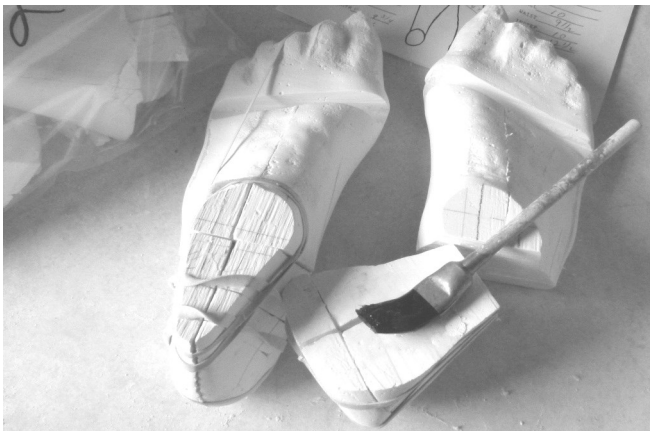
17 Putting glue on the pieces.



18 Ditto.



19 Letting the glue dry.



20 Gluing the backs to the fronts.

21 Aligning with the marks.

22 The casts are back together and the heels have been narrowed.

MODIFYING THE TWIST OUT OF A CAST

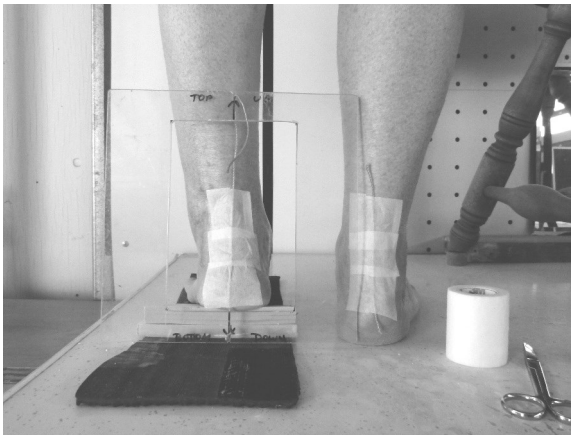
I want you to learn from this case. But, I am not advocating this as a procedure you should do unless you are well grounded in the human body studies and have permission from a client and/or medical type provider.

A drunk driver took away this ladies body symmetry for life. She was hospitalized for a long time and the doctors did many, many reconstructive procedures which ultimately allowed her to walk and function. The doctors did the very best they could do. This lady is not structurally symmetrical.

I can only make shoes based on what I observe and what I am told by the client and/or a medical provider.

1 Just observe. The customer said this position was comfortable.

2 The customer said this lift felt acceptable enough to try in the shoes.



3 Closer view.

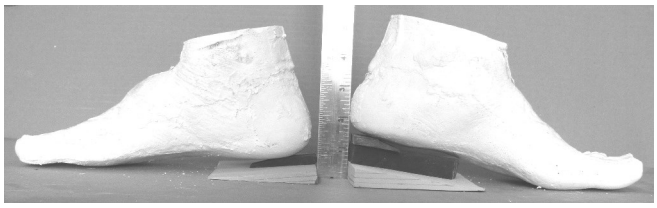
4 Both vertical standing strings are in place.

5 Side view.

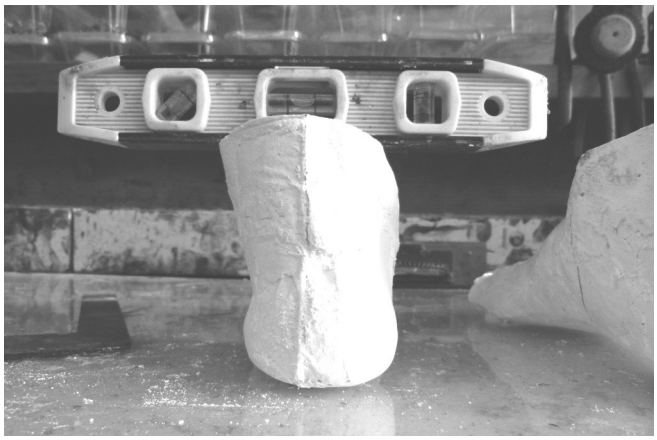
6 Side view.

7 Side view. Notice heel wedges for lift. Customer said this position was comfortable.

8 Front view. The feet in this picture look fairly straight and aligned.



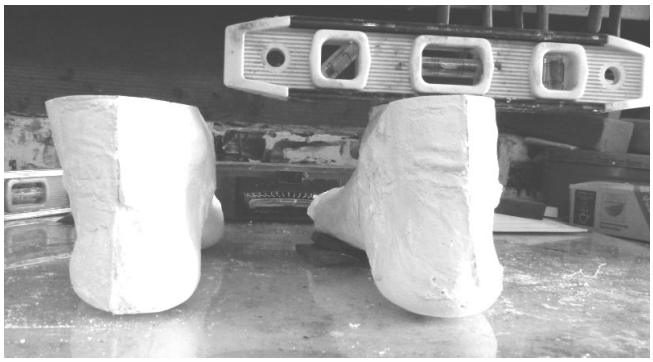
9 After pouring up the casts, I tried to asses the proper lifts before proceeding.



20 Then I started looking for the correct vertical alignment. Do you see the twist that happened to the right foot during the casting? Go back and look at the pictures of the casting set up and then look at the standing pictures.

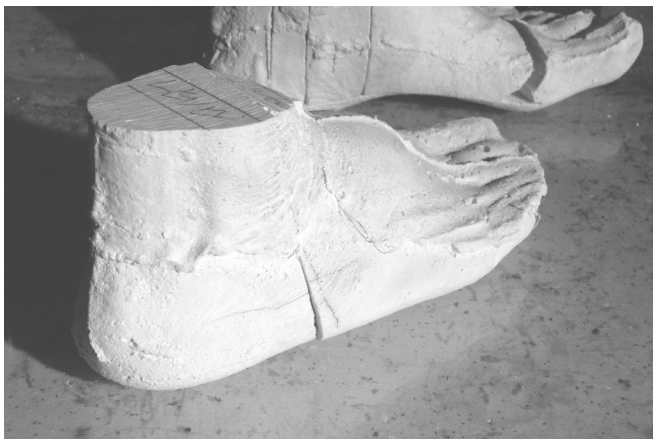
21 The twist of the right cast forefoot doesn't correlate with the barefoot standing pictures, which the customer said was comfortable. This situation needs to be fixed! I keep looking and thinking. This customer is gone and lives too far away.

22 This customer may not come back for a recast and another trip would be a hardship for her. My guess is that the twist is from asymmetry of muscles and connective tissue caused by the accident and necessary surgeries. The twist may not straighten for casting without causing other distortions. Finally, the standing position is more correct than the sitting position.



23 This is how the vertical alignment should be for the heel, ankle and leg. But, the forefoot is twisted.

I keep thinking about what should be the best solution.



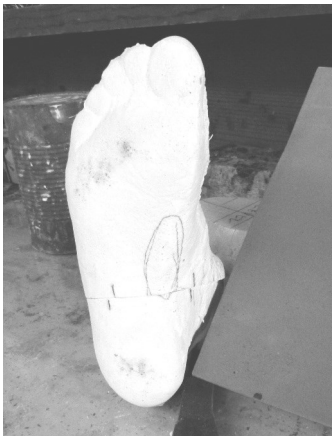
24 This is my best solution. I modify the cast using a coping saw to make a vertical cut. The back of the cast will remain in alignment. The front of the cast will be twisted so it has the correct alignment to match the back of the cast for standing.

25 Ditto.

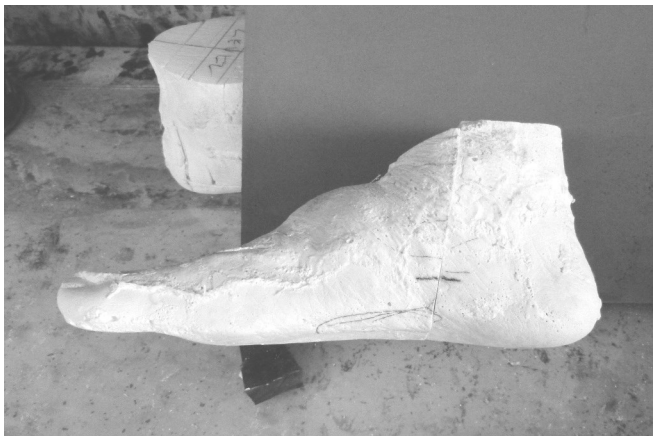
26 Ditto.

27 Ditto.

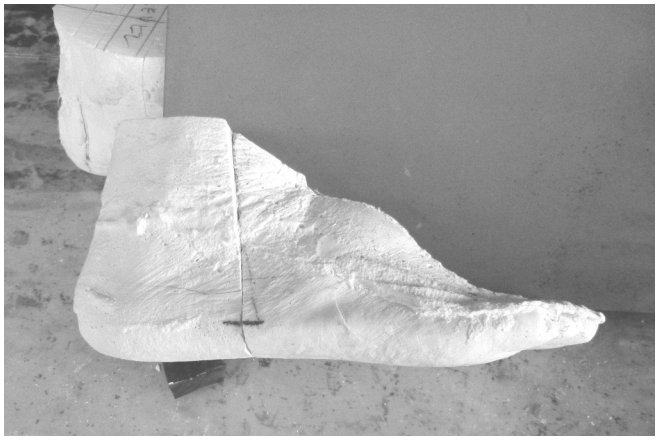
28 Ditto.



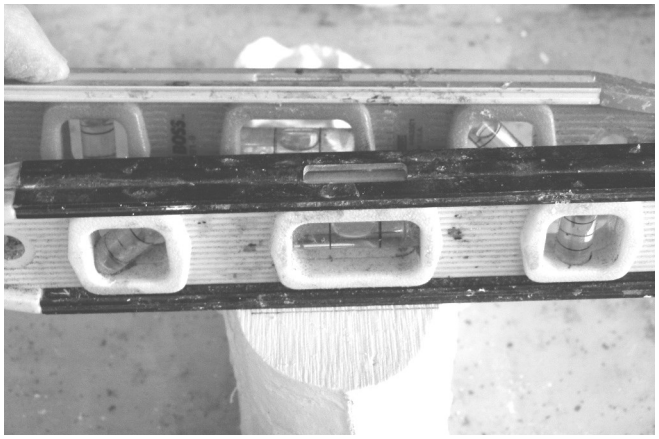
29 Ditto.



30 Ditto.



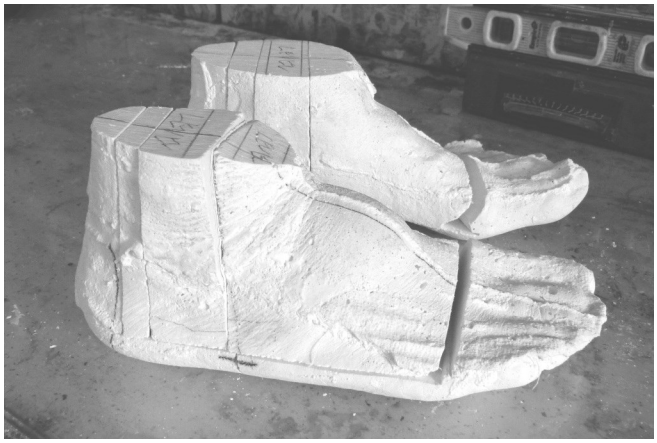
31 Ditto.



44 I now have two levels to keep in mind in case I have to change the amount of twist in a remaking of the shoe.

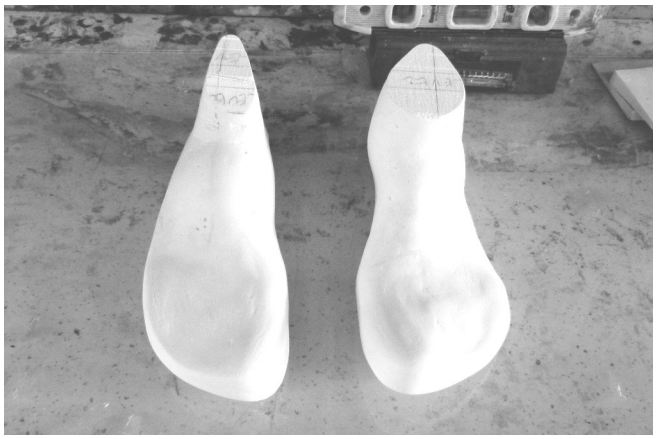
45 Do you see my correction?

46 Ditto.



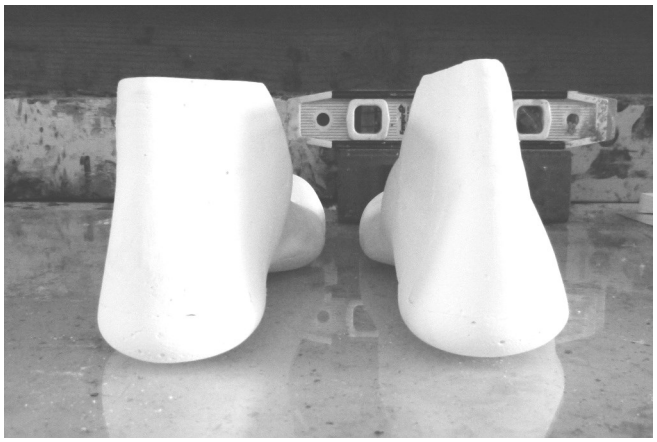
47 Ditto.

48 I have plastered the cast and transformed it into a "LAST".

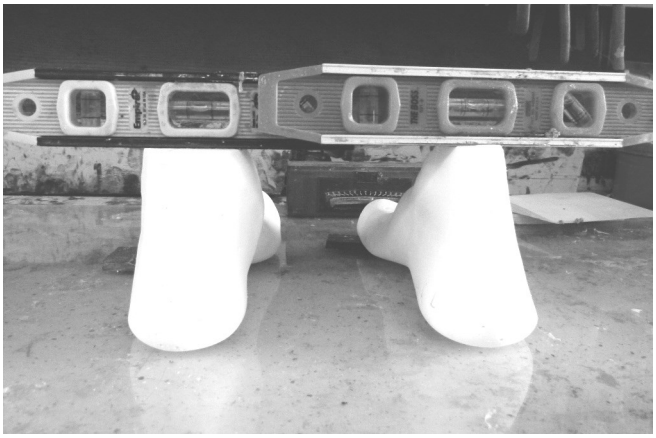


49 Ditto.

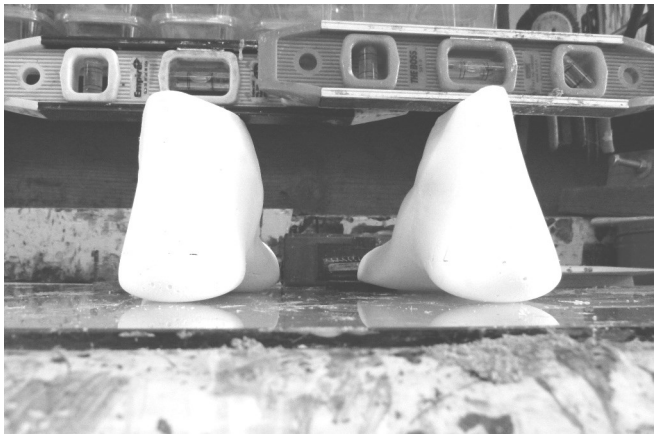
50 Ditto.



51 Ditto.

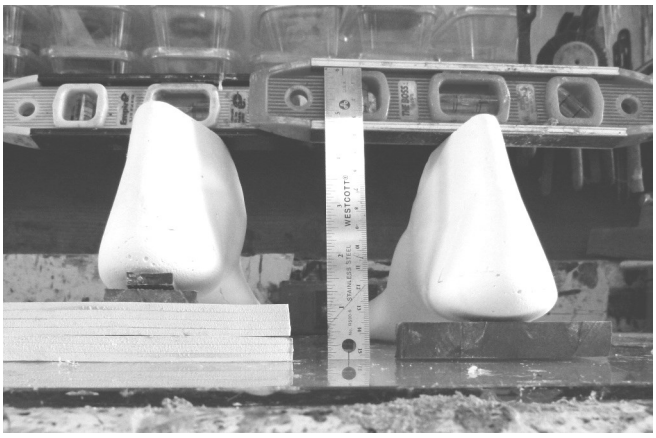


52 Ditto.



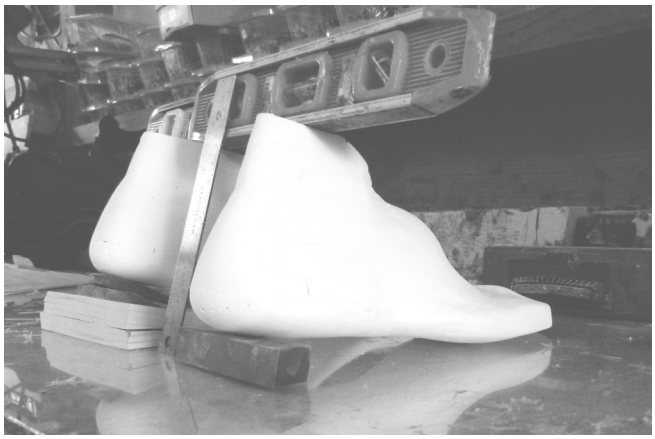
53 Ditto.

54 Now I keep the alignments and mock up the lifts before making the shoes.

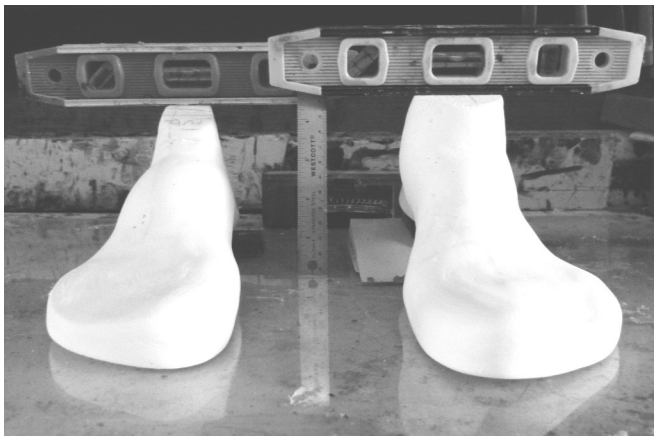


55 Please don't get tired of these pictures. They are telling you a story. I want you to learn to look at everything from all angles possible. You need to understand what you are doing and what you intend to do next.

56 Ditto.



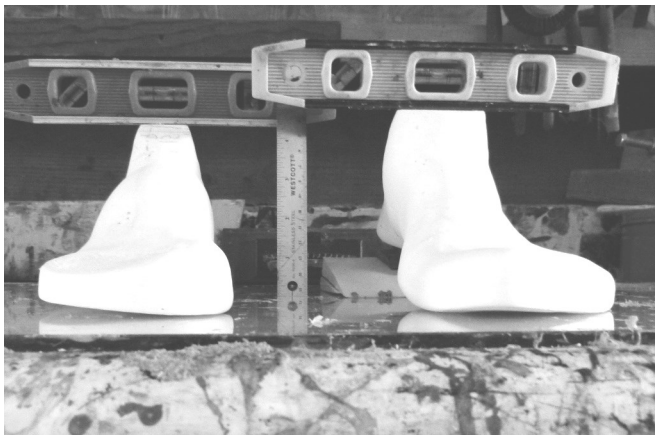
57 Ditto.



58 Ditto.

59 Ditto.

60 Ditto.



61 Ditto.

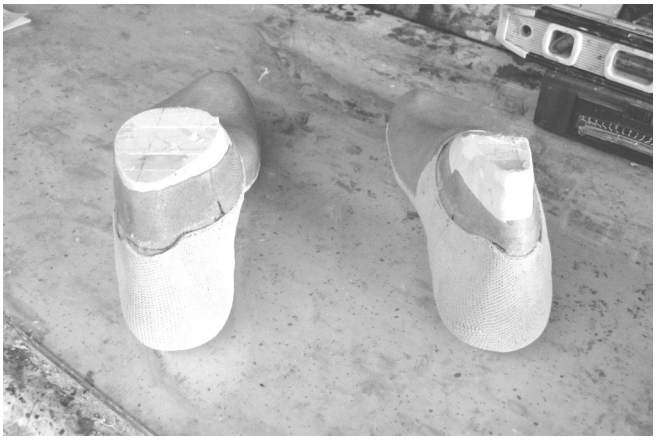
62 Ditto.

63 Ditto.

65 The inserts and lining have been added. The single knit sock has been added, latexed and the top front of the sock cut away. These are going to be soft shoes.

66 Ditto.

67 Ditto.



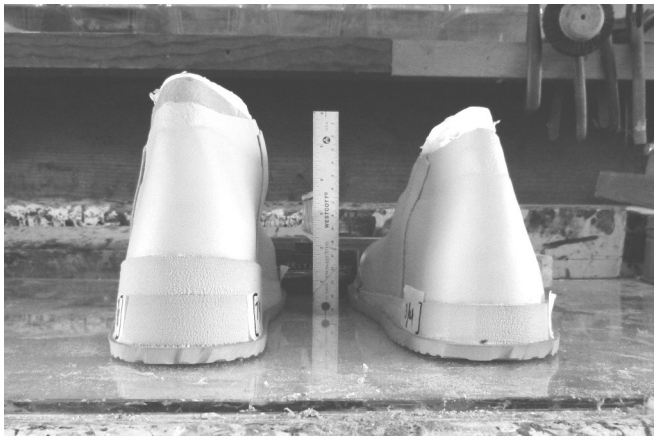
68 Ditto.

69 The shoes are being "mudded".

70 Ditto.

71 The lifts and soles have been added.

72 Ditto.



73 Ditto.

74 Ditto.

75 Now the shoes are finished.

76 Ditto.

77 Ditto.

78 Ditto.

79 The customer received the shoes and said they felt good.

Please understand there is a lot which can be done with molded shoes to help a lot of people. But, you are an artisan and/or craftsperson. I am not teaching you to do anything which can be construed as medical unless you have the blessing of the customer and a medical provider.

The purpose of these four books is to provide information to you so you can learn to make your own molded shoes, boots and sandals.

I have given you a lot of information because I want you to be successful in making your own molded footwear.

Thank goodness no additional cast modification beyond the normal procedures was needed for this client.

This was a case of an extreme bowlegged condition and walking with a lot of lateral torsion.

Just observe that this person needed a lot of arch support for stability, and a size and shape not to be found in an already made boot from a store.

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I want to thank Mr. Alan E. Murray for developing the idea and methods of fabrication of the first moulded shoes which were made to the shape and form of each individual foot. And, for enduring a lot of hardships and persecution from those who didn't want his idea to be available to the public without their deep pockets being lined with wealth.

There is absolutely no reason why molded footwear should not be allowed for the general public to decide if they wanted to partake of the benefits of the idea or not. The persecutors had no right to try to destroy something of potential benefit to human society.

Mr. Murray had some years of glory, but he also struggled and endured some very hard times, as did a lot of other people in those years.

I also want to thank Mrs. Lucile Marsh Murray for her continuing promotion of Mr. Murray's moulded shoe ideas, and the Murray Space Shoe footwear businesses. She continually used all the resources available to her to protect and defend the continuation of the Murray Space Shoe. She never quit until the time she granted to my mother and me the rights to continue making and offering Murray Space Shoe footwear to the public. She provided my mother and me with training and a lot of useful advice.

We did our best in the promotion and offering of the MURRAY SPACE SHOE® products and services to the public. I have been the sole artisan and/or craftsperson of our MURRAY SPACE SHOE® business for over 35 years. I have learned a lot. These four books are the fulfillment of my endeavor to pass on the ideas and methods of the Murrays to you so that you can learn to make your own molded shoes, boots and sandals.

I hope that you derive a lot of enjoyment and satisfaction in being able to make your own molded footwear.