

confronting supporting surface during both the impact and delivery phases of lateral loading of the prosthesis 10. Instead of a single edge of the prosthesis effectively contacting the supporting surface, the above-described independent flexure of the portions 24 permits corresponding edges of each such portion 24 to contact the supporting surface, thereby improving the traction or frictional contact between the bottom of the prosthesis and the confronting surface.

The prosthesis of my invention has been described with some particularity but the specific designs and constructions disclosed are not to be taken as delimiting of the invention in that various modifications will at once make themselves apparent to those of ordinary skill in the art, all of which will not depart from the essence of the invention and all such changes and modifications are intended to be encompassed within the appended claims.

I claim:

1. In a prosthetic foot, the combination of: attachment means for facilitating the operative engagement of the foot with a wearer's stump; and a plurality of curvilinear, energy-storing foot portions operatively attached to said attachment means and extending downwardly therefrom to contact a supporting surface, each of said foot portions including an ankle section, whereby said foot portions may interact with the supporting surface independently from one another, in which said plurality of curvilinear portions are of similar shape.

2. The prosthetic foot of claim 1 in which one or more of said plurality of curvilinear portions include forwardly extending forefoot sections having rearwardly extending heel sections operatively connected thereto.

3. The prosthetic foot of claim 2 in which said heel sections are detachably connected to said forefoot sections.

4. The prosthetic foot of claim 1 or claim 2 or claim 3, further including connecting means for operatively connecting two or more of said plurality of curvilinear portions to each other at a location remote from said attachment means, whereby the movement of said connected curvilinear portions relative to each other is limited.

5. The prosthetic foot of claim 1 or claim 2 or claim 3 in which said plurality of curvilinear portions is fabricated from superimposed laminates maintained in operative relationship by an encapsulating polymer and susceptible to bending stress determined by the thickness of the laminates.

6. The prosthetic foot of claim 1 or claim 2 or claim 3 in which said plurality of curvilinear portions include continuous, integrally and simultaneously formed attachment, ankle, arch and toe sections, said sections being fabricated as unitary structures by polymer impregnation of superimposed reinforcing laminae; said attachment, ankle, arch and toe sections being capable of spring stress generated energy storage whereby the subjection of said foot to bending moments will cause transmission of spring stress through said attachment, ankle, arch and toe sections.

7. The prosthetic foot of claim 6, further including a corresponding plurality of heel members having a attachment section secured to the intersection of said arch and toe sections and a heel section extending rearwardly therefrom, said heel members being fabricated as unitary structures by polymer impregnation of super-

imposed reinforcing laminae and being capable of spring stress generated energy storage.

8. A prosthetic foot including: a forefoot portion incorporating an upper attachment section for facilitating operative connection to a wearer's stump, a curvilinear ankle section, an arch section and a toe section; and a heel portion having an attachment section secured to said forefoot portion and a heel section extending therefrom, in which said forefoot and heel portions are completely or partially divided into similarly-shaped segments capable of movement relative to one another.

9. The prosthetic foot of claim 8 in which said division into segments constitutes a bifurcation of said forefoot and heel portions.

10. The prosthetic foot of claim 9 in which said bifurcation is defined by a slot in said forefoot and heel portions.

11. The prosthetic foot of claim 8 in which said securement of said heel portion to said forefoot portion occurs at the intersection of said arch and toe sections.

12. The prosthetic foot of claim 8, further including connecting means for operatively connecting two or more of said segments to each other at a location remote from said attachment section, whereby the movement of said connected segments relative to each other is limited.

13. The prosthetic foot of claim 8 or claim 9 or claim 10 or claim 11 or claim 12 in which said securement of said heel portion to said forefoot portion is detachable.

14. The prosthetic foot of claim 8 or claim 9 or claim 10 or claim 11 or claim 12 in which said heel portion is fabricated from superimposed laminates maintained in operative relationship by an encapsulating polymer and susceptible to bending stress determined by the thickness of the laminates.

15. The prosthetic foot of claim 8 or claim 9 or claim 10 or claim 11 or claim 12 in which said forefoot portion is fabricated from superimposed laminates maintained in operative relationship by an encapsulating polymer and susceptible to bending stress determined by the thickness of the laminates.

16. The prosthetic foot of claim 8 or claim 9 or claim 10 or claim 11 or claim 12 in which said forefoot portion consists of continuous, integrally and simultaneously formed attachment, ankle, arch and toe sections, said sections being fabricated as unitary structures by polymer impregnation of superimposed reinforcing laminae; said attachment, ankle, arch and toe sections being capable of spring stress generated energy storage whereby the subjection of said foot to bending moments will cause transmission of spring stress through said attachment, ankle, arch and toe sections.

17. The prosthetic foot of claim 16 in which said heel portions are demountably attached to corresponding of said forefoot portions to permit heel portions having different spring rates to be secured to said forefoot portions of said foot.

18. The prosthetic foot of claim 8 or claim 9 or claim 10 or claim 11 or claim 12 in which said heel portions consist of continuous, integrally and simultaneously formed attachment and heel sections, said sections being fabricated as unitary structures by polymer impregnation of superimposed reinforcing laminae; said attachment and heel sections being capable of spring stress generated energy storage whereby the subjection of said foot to bending moments will cause transmission of spring stress through said attachment and heel sections.