

(f) an arch at the approximate bottom of said foot center coil section by obtuse angular orientation of said forefoot extension section with respect to said heel extension section;

wherein said heel extension section comprises at least one heel extension;

wherein at the location of said arch, two of said toe extensions form a gap therebetween through which said heel extension protrudes; and

wherein when a vertical load is exerted on the foot, movement of said forefoot extension section and said heel extension section with respect to said foot center coil section increases the obtuse angle formed by the orientation of said heel extension section with respect to said forefoot extension section thereby permitting said foot to experience a vertical displacement in response to said load, and said movement also causing said heel extension to move in said gap without any restriction from said toe extensions.

31. A coil spring prosthetic foot as recited in claim **30** further comprising:

- (g) a receptacle located in said foot center coil section, and
 - (h) means for adjusting spring stiffness installable in said receptacle;
- wherein said spring stiffness adjusting means also serves as a means for adjusting said arch.

32. A foot consisting essentially of a single, functionally unitary coil spring, said coil spring comprising:

- (a) a foot center coil section having a top and a bottom,
- (b) a heel extension section extending in a first generally posterior direction from said foot center coil section,
- (c) a forefoot extension section extending in a second generally anterior direction from said foot center coil section, and
- (d) an arch formed at the approximate bottom of said foot center coil section by obtuse angular orientation of said forefoot extension section with respect to said heel extension section;

wherein said forefoot extension section is in the approximate location and orientation of the metatarsal shaft and head of a human foot;

wherein said heel extension section is in the approximate location and orientation of the calcaneus of a human foot;

wherein said forefoot extension section comprises a plurality of toe extensions, each of said toe extensions being separately articulable from the rest of said toe extensions;

wherein said heel extension section comprises at least one heel extension;

wherein at the location of said arch, two of said toe extensions form a gap therebetween through which said heel extension protrudes; and

wherein when a vertical load is exerted on the foot, movement of said forefoot extension section and said heel extension section with respect to said foot center coil section increases the obtuse angle formed by the orientation of said heel extension section with respect to said forefoot extension section thereby permitting said foot to experience a vertical displacement in response to said load, and said movement also causing said heel extension to move in said gap without any restriction from said toe extensions.

33. A foot as recited in claim **32** further comprising:

- (e) an elongate shin section extending in a generally vertical direction from said foot center coil section, said shin section comprising a plurality of torsional beams for accommodating torsional movement of said shin section about a longitudinal axis through said shin section.

34. A foot as recited in claim **32** further comprising:

- (e) means for measuring the amount of bending of various parts of the foot, said measuring means yielding bend measurements, and
- (f) means for communicating said bend measurements to the wearer of the foot via the use of a signal;

wherein said communication means communicates a signal which allows the wearer of the foot to feel by physical sensation the position of various parts of the foot.

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