

[54] **ARTICULATED CLOG**

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[58] Field of Search **36/11.5, 2.5 R, 2.5 J**

[56] **References Cited**

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[57]

ABSTRACT

A new and improved, articulated clog construction which may be assembled by an unskilled person using only a simple tool, such as a hammer, is disclosed herein. The new clog is comprised of three injection molded, hollow, rib reinforced plastic body elements which are articulated to one another by means of elastomeric loops or bands. A one-piece, contoured, flexible insole is attached by pins, rivets, nails or the like, to the body elements. Three separate sole elements of molded neoprene or similar durable material are attached to the lower surfaces of the body elements. Advantageously, each of the sole elements has pin-like projections formed integrally therewith for locking insertion into mating sockets formed in each of the body elements. A vamp is secured to the insole of the new clog by the pins, rivets, nails or the like used in the attachment of the insole to the upper surfaces of the articulated body elements.

10 Claims, 3 Drawing Figures

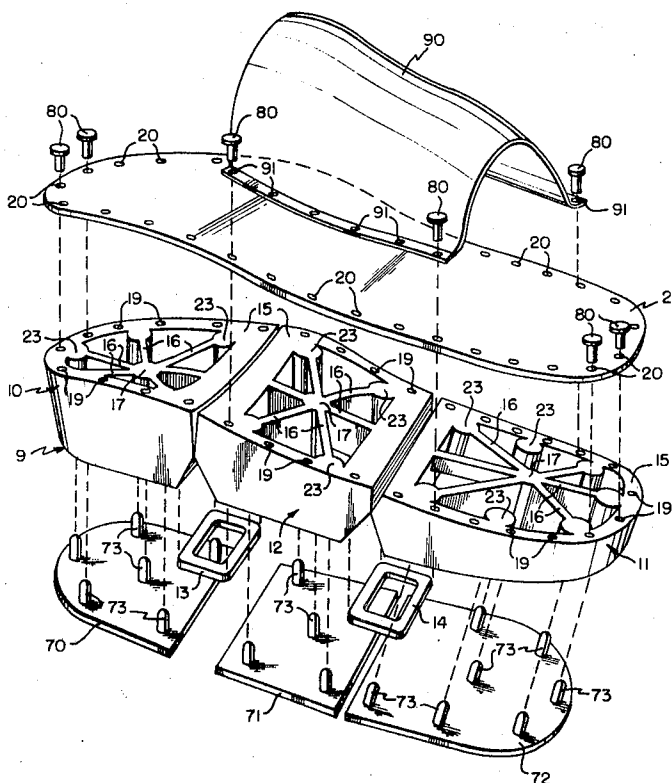


FIG. 1

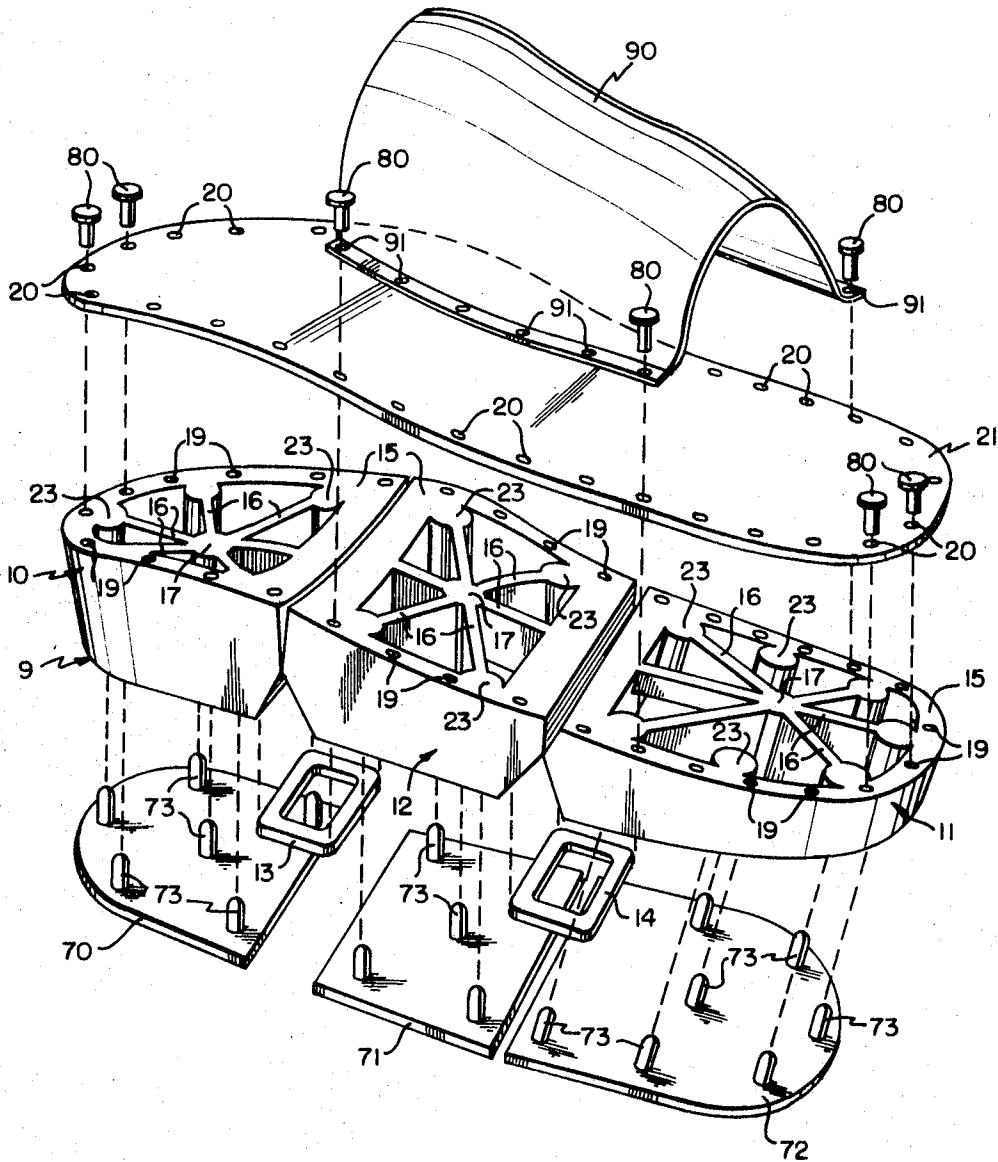


FIG. 2

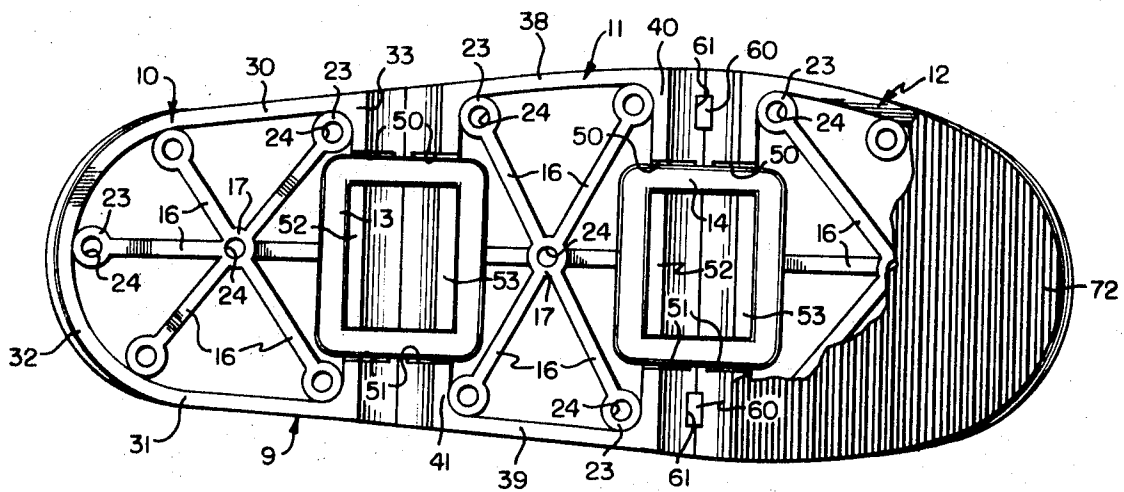
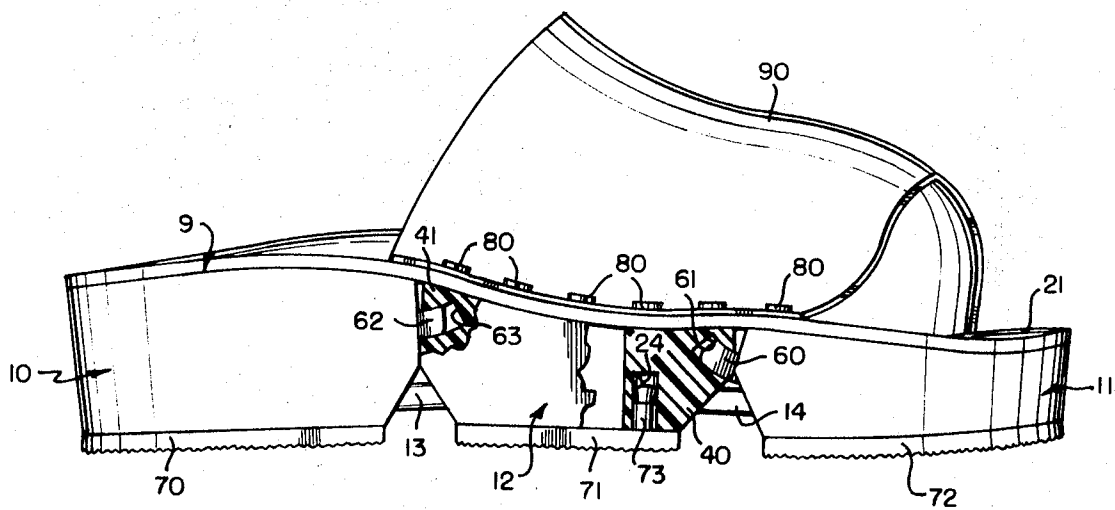


FIG. 3



ARTICULATED CLOG

SUMMARY AND BACKGROUND OF THE INVENTION

Plastic shoes in general and hollow plastic clogs in particular are well known to the shoemaking art. Moreover, articulated sandals and articulated clogs are also known to the shoemaking art. However, an articulated plastic clog which is suitable for manufacture by mass production techniques and which may be marketed and distributed in kit form for subsequent assembly by unskilled persons has not been known to the art.

Specifically, the present invention is directed to a new and improved articulated plastic clog construction, which construction is especially well suited for assembly by unskilled labor or by "do-it-yourself" shoemakers. The new clog comprises essentially a three-piece, reinforced hollow body, including a ball of the foot support, an arch support, and a heel support, interconnected by a pair of elastomeric loops to which reinforced hollow body portion are attached a one-piece plastic insole and a multi-piece plastic sole. A vamp of any desired conventional construction is secured to the insole through appropriate fasteners, advantageously of the type used in the attachment of the insole to the upper surfaces of the body elements.

The new clog construction may be produced in any color plastic or in a combination of different colors. One or more of its components may be transparent. Indeed, a transparent insole will display the aesthetic nature of the reinforcing ribs of the hollow body portion. It will be appreciated that the new clog is water resistant and impervious to attack or deterioration by dampness, since all of its essential parts are of plastic construction.

For a more complete understanding and a better appreciation of the design and construction of the new clog and its attendant advantages, reference should be made to the following detailed description taken in conjunction with the accompanying drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is an exploded, perspective view showing the various components of the new clog and the manner in which they are assembled in accordance with the principles of the invention;

FIG. 2 is a bottom plan view of the clog of the present invention; and

FIG. 3 is a side, elevational view of the clog of the present invention with parts broken away to show details of construction.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

Referring now to FIG. 1, the new and improved articulated clog body 9 of the present invention generally comprises a one-piece hollow heel body element 10 and a one-piece toe body element 11, which are articulated to a hollow one-piece body element 12 by means of rectangular elastomeric loops 13 and 14. More specifically, each of the body elements 10-12 includes upper surfaces 15 which are contoured to the general shape of the foot portions which are supported thereon. That is to say, the heel body 10 has upper surfaces 15 which generally conform to the shape of the heel of the foot; the arch body 12 has upper surface 15 which generally conform to the shape of the arch portions of the

foot; and the toe body 11 has upper surfaces 15 which generally conform to the contours of the ball of the foot. In addition, each of the body portions 10-12 have a plurality of ribs 16 radiating from a central hub 17, which ribs 16 serve to reinforce and strengthen each of the body portions and to bear the load of a foot when it is placed upon the upper surfaces 15.

Adjacent the upper edges of the elements 10-12, a plurality of peg receiving holes 19 are disposed in predetermined spacing. As will be understood, the holes 19 extend about the periphery of the articulated body portions 10-12. They are spaced and located in a manner which will be in predetermined registry with corresponding holes 20 preformed in a one-piece insole 21 when the insole 21 is superimposed on the surfaces 15 of the elements 10-12. In addition and as will be further understood, the contour of the insole 21 conforms precisely to the upper contours of the body elements 10-12, and the edges of the insole are flush with the upper edges of the elements 10-12.

In accordance with the invention, each of the body portions 10, 11 and 12 at the lower surfaces thereof have integrally formed bosses 23 in which are formed sockets 24. Advantageously, most of the ribs 16 terminate at the bosses 23. In addition, at the lower surfaces of each of the hubs 17 a socket 24 is formed.

More specifically and as shown best in FIG. 2, each of the three clog body elements 10, 11, 12 includes a pair of side walls and front and rear walls which are definitive of a unitary hollow structure which is reinforced by the ribs 16 radiating from the hub 17. Thus, the body element 10 includes side walls 30, 31, a rear wall 32, and a front wall 33; the body element 11 includes side walls 34, 35, a front wall 36 and a rear wall 37; and the body element 12 includes side walls 38, 39, a front wall 40 and a rear wall 41. As a very important aspect of the invention, the pairs of abutting walls 33, 41 and 37, 40 are each oppositely canted and are interrupted by slots 50, 51 to define pairs of oppositely directed posts 52, 53. In accordance with the principles of the invention, the divergent pairs of posts 52, 53 are each adapted to receive thereover one of the closed, elastomeric loops 13, 14, advantageously a rectangular, heavy "rubber band" 13, 14, or the like. The closed elastomeric loops, when placed over the pairs of posts 52, 53 serve to articulate the heel and toe body elements 10, 11 to the arch body element in the manner shown in the drawings. Moreover, since the elements 13, 14 are elastomeric, they function as biasing springs to urge the body elements 10-12 into their positions shown in FIG. 2, while accommodating pivoting or hinging of elements 10, 11 with respect to element 12.

In addition and as a further specific feature of the invention, the proper alignment of the body elements 10, 11 and 12 with one another in assembly and the subsequent maintenance of that alignment in use is assured by the provision of projecting tongues on each of the toe and heel body elements 10, 11, which tongues are received in corresponding slots or grooves in the arch body element 12. More specifically and as shown best in FIG. 3, the toe body 11 includes rearwardly directed tongue portions 60 which are generally upwardly curved and which tongue portions cooperate with elongated curved slots 61 formed in the front wall 40 of the arch body element 12. As will be appreciated, the elongated groove 61 accommodates flexion or pivoting of the toe body 11 relative to the arch body 12 during use

of the new clog. Similarly, the heel body 10 includes forwardly projecting generally upwardly directed tongue portions 62 formed integrally with the front wall 33 of the heel body 10, which tongue portions are adapted to be inserted in correspondingly shaped elongated slots or grooves 63 to assure the proper alignment of the heel body 10 with the arch body 12 and to accommodate controlled pivotal movement therebetween in use.

The articulated clog of the present invention includes wear sole elements 70, 71 and 72 which are connected to the sockets 24 at the lower surfaces of each of the body elements 10, 11, 12 by means of integral wear sole pins 73 which are arrayed for predetermined registry with the pattern of sockets 24. Thus, it will be appreciated that the wear sole elements, advantageously made of neoprene or similar hardwearing or durable material, may be affixed to the body elements 10, 11, 12 merely by light hammering. Similarly, the insole 21 may be affixed to the upper contoured surfaces 15 of the body elements 10-12 by the light hammering of rivets, pins, nails 80 or like fasteners through the holes 20 which are adapted to register with the holes 19 formed at the upper surfaces of the body elements 10-12.

As indicated in FIG. 1, any suitable vamp 90 may be assembled to the insole of the new clog during the attachment of the insole to the upper surfaces 15 merely by passing the rivets 80 through appropriately arrayed holes 91 in the vamp 90, which holes are spaced to register with the holes 20 in the insole (which holes 20, of course, are arrayed to register with the holes 19 in the upper surfaces 15 of the body elements 10-12).

It will be appreciated that the various components of the present invention provide a simple to assemble, durable construction of an articulated clog which may be readily assembled from a kit by an unskilled person using only a hammer. The preregistration and the preformation of holes on the various prefabricated elements makes the task especially simple and virtually foolproof.

It should be understood that the articulated clog invention herein illustrated and described is intended to be representative only, as certain changes may be made therein without departing from the clear teachings of the disclosure. Accordingly, reference should be made to the following appended claims in determining the full scope of the invention.

I claim:

1. An articulated clog construction comprising
 - a. a hollow clog body comprised of a heel body element, an arch body element and a toe body element;
 - b. first and second elastomeric loop means;
 - c. post means formed on each of said clog body elements;
 - d. said elastomeric loop means cooperating with said post means to connect said toe and heel body elements to said arch body element for limited pivotal movement therebetween;
 - e. one-piece insole means secured to the upper surfaces of the clog body elements;

- f. separate wear sole elements attached to the lower surfaces of each of the clog body elements; and
- g. a vamp means secured to said hollow clog body.

2. The articulated clog construction of claim 1, in which
 - a. peglike means secure said insole and said vamp means to the upper surfaces of said clog body elements.
3. A clog construction in accordance with claim 1, in which
 - a. said wear sole elements include integral upwardly projecting pin-like elements;
 - b. said clog body elements include integral socket means adapted to cooperate with said pin-like elements to retain said wear sole elements on said clog body elements.
4. The clog construction of claim 1, in which
 - a. said toe body element and said heel body element have projecting tongue portions;
 - b. said arch body element has slot portions formed in the front and rear walls thereof to receive said tongue elements; and
 - c. said tongue portions and slot portions cooperating to maintain said clog body elements in predetermined alignment.
5. An improved clog body element comprising
 - a. four walls definitive of a hollow foot supporting member;
 - b. a hub disposed centrally of said four walls;
 - c. slat-like reinforcing ribs extending between said four walls and said hub;
 - d. a plurality of peg receiving openings formed on the upper surface of said clog body elements;
 - e. a plurality of socket means formed at the lower portion of said clog element;
 - f. said upper surface portions of said clog element being specifically contoured to support a portion of a human foot.
6. The clog body element of claim 5, which includes
 - a. means formed at a wall thereof to align said clog body with another clog body element.
7. The clog body element of claim 5, which includes
 - a. post means formed therein to anchor a closed loop spring means for flexibly connecting said clog body element to another clog body element.
8. The clog body element of claim 5, which includes
 - a. wear sole means secured through said sockets; and
 - b. insole means secured through said peg receiving holes.
9. The clog body element of claim 8, which includes
 - a. a vamp means;
 - b. peg means securing said vamp means and said insole means to the upper surfaces of said clog body element.
10. A first clog body element of claim 7, a second clog body element of claim 7, and a third clog body element of claim 7, together with an insole, three wear sole elements, a vamp, two elastomeric loops, and a plurality of peg means to form a clog kit.

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