June 10, 1952 J. V. BEVERIDGE 2,599,740

PATTEN

Filed Sept. 12, 1949

Fig. 1.

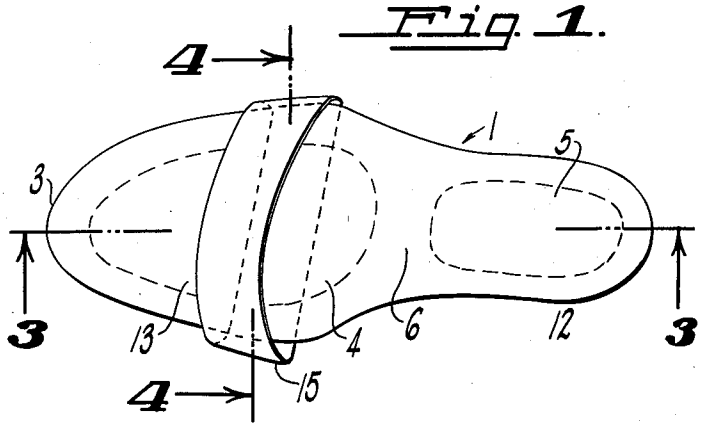


Fig. 4.

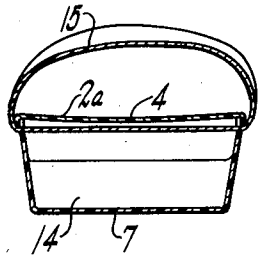


Fig. 2.

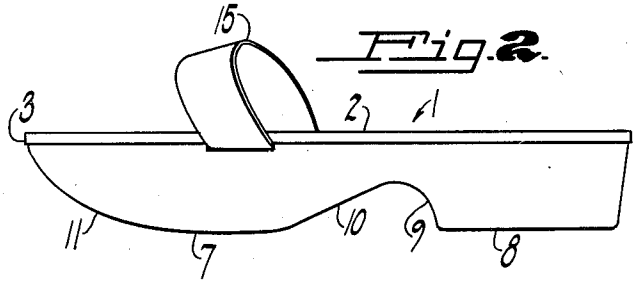


Fig. 6.

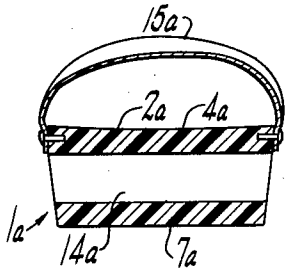


Fig. 3.

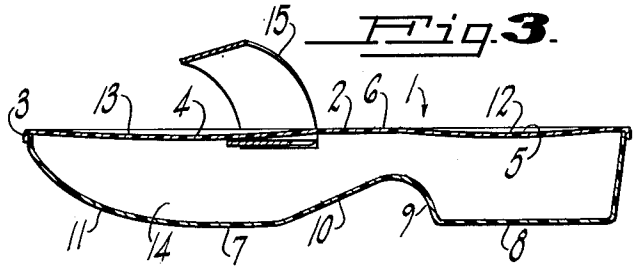


Fig. 7.

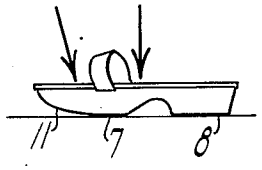


Fig. 8.

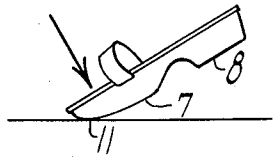
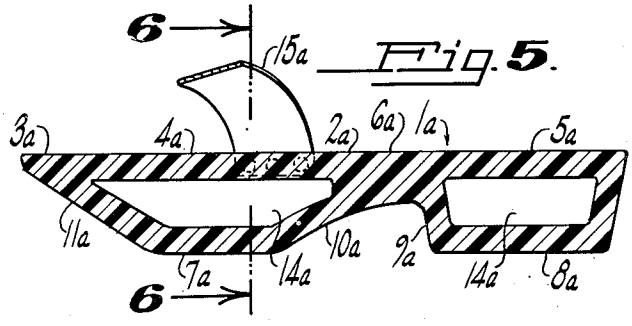


Fig. 5.



INVENTOR,
JOHN V. BEVERIDGE.
BY
Townsend and Townsend
ATTORNEYS

Patented June 10, 1952 2,599,740

UNITED STATES PATENT OFFICE

2,599,740

PATTEN

John V. Beveridge, Oakland, Calif.

Application September 12, 1949, Serial No. 115,133

1 Claim. (Cl. 36—11.5)

1

This invention relates to an improvement in foot gear and particularly to foot gear such as platform soles, pattens, chopines, clogs, sandals, zoris, getas and the like.

One of the objects of the invention is to provide a sole of the foregoing character which can be manufactured from stiff materials, such as molded thermo-plastics, and nevertheless manifest the rocking motion of the conventional leather sole.

Another object of the invention is to provide foot gear of the foregoing character which is light in weight in spite of its thickness.

A further object of the invention is to provide foot gear of the foregoing character which insulates the foot of the wearer from extreme temperatures existant in the surface upon which the wearer is walking.

These and other objects of the invention will appear from the following description in connection with the accompanying drawings which illustrate two species of the applicant's foot gear and in which:

Fig. 1 is a plan view of one species of foot gear;

Fig. 2 is a view in elevation of the foot gear shown in Fig. 1;

Fig. 3 is a vertical longitudinal sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a vertical cross-sectional view on the line 4—4 of Fig. 1;

Fig. 5 is a vertical medial longitudinal sectional view of another species of foot gear;

Fig. 6 is a vertical cross-sectional view on the line 6—6 of Fig. 5;

Fig. 7 is a view in elevation showing the foot gear of the applicant resting upon a walking surface as when the wearer is standing stationary;

Fig. 8 is a view in elevation of the foot gear illustrated in Fig. 7 showing how the foot gear rocks when the wearer engages in movement such as walking.

The species of foot gear disclosed in Figs. 1 to 4, both inclusive comprises a body portion 1 preferably made of a durable molded thermo-setting plastic material. The upper surface 2 of the body portion 1 is shaped to fit the foot of the wearer. The upper surface 2 is provided with a toe portion 3, a ball portion 4 for the ball of the foot of the wearer, a heel portion 5 for the heel of the foot of the wearer and a shank portion 6 beneath the instep of the foot of the wearer and intermediate the ball portion 4 and the heel portion 5.

The lower face of the body 1 defines in a flat-

2

tened forward tread face 7 located so that it will be beneath the ball of the foot of the wearer and a flattened rearward tread face 8 located so that it will be beneath the heel of the foot of the wearer. The lower face of the body 1 also defines the breast 9 of the heel 6 and defines an inclined plane 10 extending from the top of the breast 9 of the heel to the bottom of the rear edge of the forward tread face 7. The lower surface of the body 1 further defines a rocking surface 11 between the forward edge of the forward tread face 7 and the toe 3 of the body 1 of the foot gear. This rocking surface converges toward the upper surface 2 of the patten.

The forward tread 7 and rearward tread 8 preferably define a plane surface so as to afford stability to the wearer when the wearer is in a standing position. The rocking surface 11 is located between the forward edge of the tread 7 and the toe 3 of the foot gear so as to give the foot of the wearer a rocking motion when the wearer engages in an activity such as walking. This rocking motion enables the wearer to overcome the usual stilted walk so common in most foot gear having rigid soles. The configuration of the rocking surface 11 used in the embodiment illustrated in Figs. 1 to 4, both inclusive is such that the face of the rocking surface defines a straight line on every line of transverse cross-section, and defines a convex line on every line of longitudinal section. The straight lines defined by transverse cross sections give the foot of the wearer lateral stability and the convex lines defined by the longitudinal sections afford a very fluid rocking motion when the wearer engages in such activities as walking.

Further comfort to the wearer is provided by shaping the upper foot supporting surface 2 so as to incorporate two saucer-like depressions 12 and 13. The depression 12 is associated with the foot of the wearer and the saucer-like depression 13 is associated with the ball of the foot of the wearer and in addition, particularly when the foot of the wearer is bare, afford a degree of suction between the foot of the wearer and the upper surface of the foot gear which tends to prevent undo slippage.

Further comfort is afforded through the provision of a dead air space 14 in the body 1 of the foot gear. This dead air space lightens the foot gear considerably and in addition improves the insulation properties of the foot gear so as to avoid excess weight and to reduce discom-

fort from extreme temperature conditions in the surface upon which the wearer is walking or standing.

A suitable strap 15 is provided to secure the foot gear to the foot of the wearer.

The other species is depicted in Figs. 5 and 6. The reference numerals 1a to 15a, both inclusive annexed to these two figures correspond generally to the numbers 1 to 15 affixed to Figs. 1 to 4, both inclusive with the following differentiations: Whereas the rocking surface 11 in the species illustrated in Figs. 1 to 4, both inclusive is defined by a straight line in transverse cross-section and by a convex line in longitudinal section, the rocking surface 11a of the embodiment illustrated in Figs. 5 and 6 is defined by a straight line in both sections and comprises a simple inclined plane. The second differentiation lies in the construction of the dead air space 14 of the species illustrated in Figs. 1 to 4, both inclusive. Instead of using this dead air space, the species illustrated in Figs. 5 and 6 incorporates two tunnels both designated 14a, which extend the entire width of the foot gear. It will be quite apparent that these tunnel structures have a certain degree of lightening and insulating properties but that they are not as effective as the dead air space 15 of Figs. 1 to 4, both inclusive. It will also be apparent that tunnels such as 14a may be more easily incorporated into foot gear than the dead air space 14.

Figs. 7 and 8 illustrate the operation of the rocking surfaces of both species of my disclosure. In Fig. 7 the shoe is illustrated with both the forward and rearward tread faces in contact with a walking surface, such as when the wearer is standing. In Fig. 8 the wearer is depicted taking a step forward showing the rocking surface in play.

Changes may be made in the form, construction and arrangement of the parts without departing from the spirit of the invention, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims. The invention is hereby claimed as follows:

I claim:

A patten comprising a bottom member and a top member, the bottom member being formed of a sheet of molded thermo-setting plastic material and being provided with a peripheral upturned edge, the lower face of the bottom member being formed with a flattened forward tread face, a flattened rearward tread face, a heel forming breast forward of the rearward tread face, and an inclined plane between the breast and the forward tread face to define a heel and toe portion, and the lower face of said bottom member being further formed with a rocking surface forward of the forward edge of the forward tread face, said rocking surface defining a straight line on every line of transverse cross section and a convex line on every line of longitudinal section, and the top member of said patten being formed of a sheet of molded thermo-plastic material and being provided with a peripheral downturned edge, a saucer like depression adapted to fit the heel of the wearer and a second saucer like depression adapted to fit the ball of the foot of the wearer, the upturned edge of the lower member and the downturned edge of the upper member being telescopically arranged and secured, and strap means to secure the patten to the foot of the wearer.

JOHN V. BEVERIDGE.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,486,630	Burnett	Mar. 11, 1924
2,176,570	Grossman	Oct. 17, 1939
2,381,389	Riesing	Aug. 7, 1945
2,395,767	Sutcliffe	Feb. 26, 1946
2,466,373	Cain	Apr. 5, 1949

OTHER REFERENCES

American Shoemaking, December 6, 1939, page 9.