

B. M. WEIR.

SHOE.

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1,018,145.

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Fig. 1.

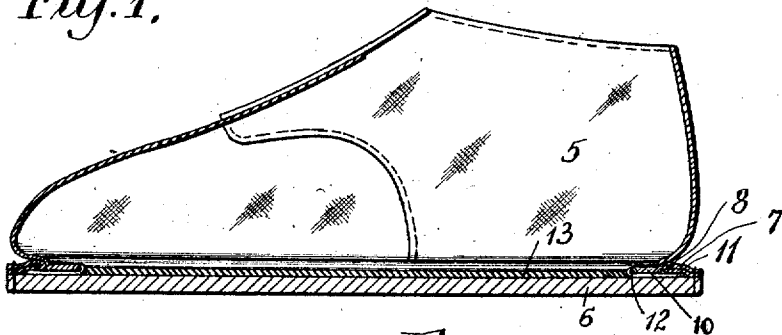


Fig. 2.

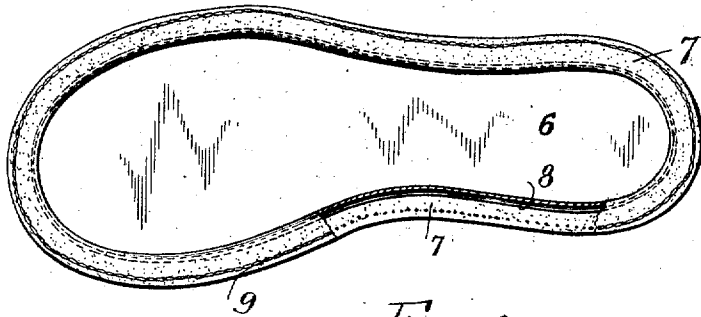


Fig. 3.

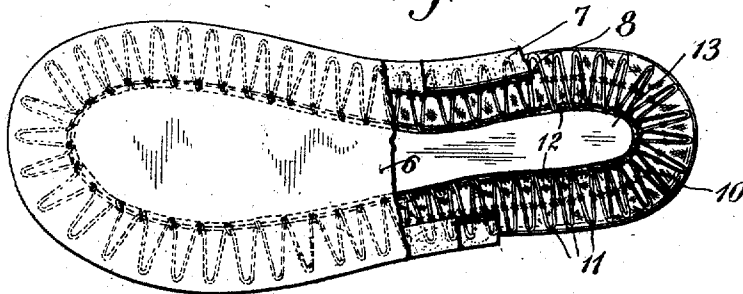
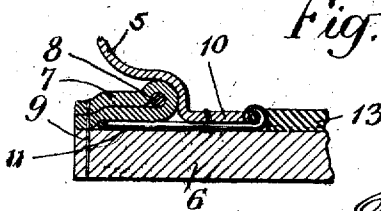


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

BERTHA M. WEIR, OF COALINGA, CALIFORNIA

SHOE.

1,018,145.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed August 3, 1911. Serial No. 642,136.

To all whom it may concern:

Be it known that I, BERTHA M. WEIR, a citizen of the United States, residing at Coalinga, in the county of Fresno and State of California, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

This invention relates to shoes, and while not limited as to its application, is of particular utility in shoes for children, the uppers of which are quite soft and pliable and do not need to be accurately shaped to fit the foot.

The invention involves the provision of a shoe having a sole which can be readily detached and includes a novel construction and arrangement of the parts of a shoe whereby such detachment can be readily effected.

In children's shoes having uppers of soft pliable fabric or kid, the uppers generally become substantially worn while the soles are still in good condition. For this reason, the provision of a shoe having the sole and upper readily detachable permits of using a number of uppers with the same sole so that the full amount of use of the sole is secured. Also, such shoes usually have uppers of various colors and it is often desired to use shoes of different colors at different times, as in matching the color of the shoes with a dress. By making provision for the ready connection and disconnection of the sole and upper, a plurality of pairs of uppers of different colors may be provided with a single pair of soles, and those uppers may be used with the soles which are of the color desired at the particular time.

The preferred embodiment of the invention is illustrated in the accompanying drawings in which—

Figure 1 is a central section of a shoe, Fig. 2 is a top view of the sole broken away and sectioned in part, Fig. 3 is a bottom view of the shoe broken away and sectioned in part and Fig. 4 is a sectional detail view.

Referring to these drawings, 5 indicates the upper of the shoe and 6 the sole. Except as hereinafter specified these parts may be of the usual or any suitable material and shape. The sole is preferably a piece of

leather of substantial thickness, substantially flat and shaped to conform to the foot, as shown in Fig. 2. The upper may be made of fabric or kid and may be of any desired color. The sole has a strip or edging 7 secured thereto and extending entirely around the periphery of the sole, this edging being secured to the sole at its outer edge and having its inner edge free of the sole, as shown in Figs. 1 and 4. In the preferred form, this edging 7 consists of a strip of fabric, kid or thin leather folded lengthwise upon itself and over a wire 8, which wire lies in the bight of the fold and may be held in place therein by stitches through the strip and around the wire. The strip 7 is secured to the sole with its edge alining with the edge of the sole by stitches 9, adjacent to the edge of the sole so that the inner edge of the strip 7 may be raised slightly above the sole to receive thereunder the coating securing devices upon the upper. This inner edge of strip 7, however, will not rise from the sole farther than is necessary to permit of the proper coaction of the securing devices because of the small width of the strip, the stiffness of the material and the stiffening effect afforded by the wire 8.

At its lower edge the upper of the shoe is turned inwardly as shown at 10 and to this inwardly extending portion are secured the devices which coact with the strip 7 to detachably secure the upper to the sole. In the preferred embodiment of the invention, these devices consist of a plurality of projections directed outwardly and adapted to have their ends inserted under the strip 7 and between that strip and the sole 6. These projections are preferably formed integrally but they are capable of a slight amount of relative movement to facilitate the connection and disconnection of the upper and the sole. The securing device on the upper here shown has a plurality of loops 11 formed from a continuous piece of wire by bending the same back and forth as shown in Fig. 3. The loops so formed are secured to the inwardly extending portion 10 of the upper by suitable stitching. In order to more effectually guard against movement of the projections 11 relatively to the portion

10 of the upper by the wire slipping through the stitches, I prefer to employ a binding-wire 12 extending transverse to the projections 11 and about which the wire forming the projections 11 is coiled at the inner ends of the projections. The series of projections 11 together with the binding wire 12 may be formed in a continuous strip and thereafter bent to the curvature of the portion 10 on the upper and sewed to the portion 10. In securing the projections 11 to the portion 10 of the upper, I prefer to stitch both the binding wire 12 and the individual projections 11 to the material of the upper. As thus constructed, the upper may be readily connected to and disconnected from the sole of the shoe. With the parts in the position shown in the drawings, any portion of the edge of the upper may be readily pressed inwardly far enough to carry the projections 11 from under the strip 7 on the sole, and by pressing the edge of the upper inwardly in this manner at three or four points, the upper may be readily disconnected from the sole. To again secure the upper to the sole, it is only necessary to slip the ends of the projections 11 under the strip 7 around the periphery of the sole of the shoe and the upper and sole will be held together securely. An in-sole 13 is preferably provided, this being of such size that it lies within the inwardly turned portion 10 of the upper with its edge close to the edge of the portion 10, and this in-sole may be secured to the sole 6 in any suitable manner. If desired, however, the edge of the in-sole 13 may be made thinner than the body-portion thereof and may be arranged to overlie the inwardly turned portion 10 of the upper. Preferably the parts are so shaped and proportioned that the upper of the shoe adjacent to the portion 10 extends outwardly over the strip 7 secured to the sole and the edge of the foot of the wearer overlies the strip 7 so that a portion of the weight of the wearer bears downwardly upon the strip 7 and the underlying projections 11. In this way, the securing devices are held more securely in coaction and all danger of detachment of the securing devices while the shoe is in use, is effectually prevented.

While the construction above described is that which I prefer to employ, I wish it understood that it may be modified in various respects without departing from the invention, and that such modified constructions are included within the broader claims appended hereto. Thus, the securing devices on the upper may be differently formed so that a strip is presented for coaction with the strip 7 instead of a multiplicity of projections formed by bending a wire back

and forth upon itself; in such a strip, a length of ribbon wire would preferably be employed, this being bent to the approximate outline of the foot and secured at its inner edge to the bottom of the upper.

Having now described my invention, what I claim as new therein and desire to secure by Letters Patent is as follows:—

1. A shoe comprising an upper, a sole and coacting securing devices permanently affixed to the upper and sole for detachably securing them together, said devices permitting the sole and upper to be disconnected by a movement of the devices affixed to the upper inwardly in a direction substantially parallel to the plane of the sole, substantially as set forth.

2. A shoe comprising an upper, a sole and coacting securing devices permanently affixed to the upper and sole for detachably securing them together and permitting them to be readily connected and disconnected as desired, said securing devices extending parallel to the edge of the sole but being located inwardly from said edge so as to underlie the space within the shoe, substantially as set forth.

3. A shoe comprising an upper, a sole, a plurality of securing devices on the upper movable relatively in a direction parallel to the plane of the sole, and coacting securing means on the sole whereby the upper and sole may be detachably connected, substantially as set forth.

4. A shoe comprising an upper, a sole, a securing device secured to the sole, extending about the periphery thereof and having its inner edge free therefrom, and securing devices on the upper adapted to coact with the inner edge of the securing device on the sole, substantially as set forth.

5. A shoe comprising an upper, a sole, a securing device secured to the sole, extending about the periphery thereof and having its inner edge free therefrom, and a plurality of relatively movable projections on the upper adapted to be inserted under the inner edge of said device, substantially as set forth.

6. A shoe comprising an upper, a sole, a plurality of projections permanently secured on the upper and formed from a length of wire by bending the same back and forth upon itself and a securing device on the sole with which said projections coact to detachably connect the sole and upper, substantially as set forth.

7. A shoe comprising an upper, a sole, a plurality of projections on the upper formed from a length of wire by bending the same back and forth upon itself, a binding wire secured to the inner ends of said projections, and a securing device on

the sole with which said projections co-act, substantially as set forth.

8. A shoe comprising an upper, a sole, a securing device secured to the sole, extending about the periphery thereof and having its inner edge free therefrom, an inwardly turned portion at the bottom of the upper, and a plurality of relatively-movable outwardly-directed projections secured to said

portion and consisting of a length of wire bent back and forth upon itself, substantially as set forth.

This specification signed and witnessed this 10 day of July, 1911.

BERTHA M. WEIR.

Witnesses:

R. L. PERRY,  
C. J. WEIR.