C. L. SKINNER & P. A. TUCKER.

ARCH SUPPORT.

APPLICATION FILED APR. 13, 1917.

1,297,922.

Patented Mar. 18, 1919.

Fig. 1

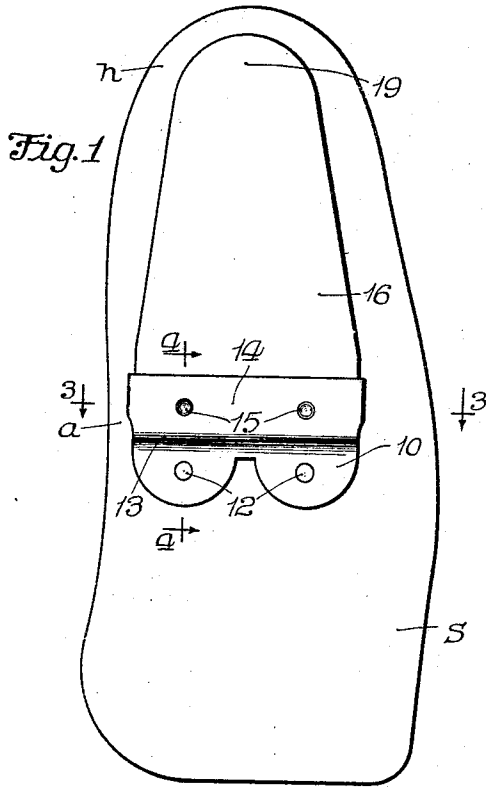


Fig. 3

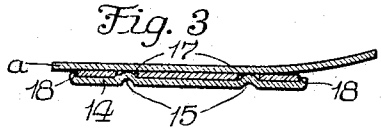


Fig. 4

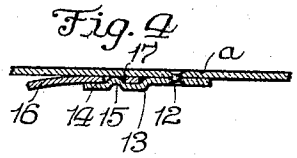
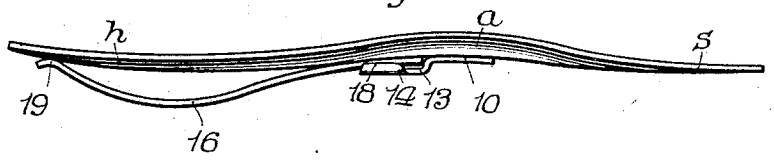


Fig. 2



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ARCH-SUPPORT.

1,297,922. Specification of Letters Patent. Patented Mar. 18, 1919.

Application filed April 13, 1917. Serial No. 161,696.

To all whom it may concern:

Be it known that we, CLYDE L. SKINNER and PURNEY A. TUCKER, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Arch-Supports, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The present invention relates broadly to arch supports and more particularly to heel cushioning attachments therefor.

An object of our invention is to provide in combination with an arch support a cushioning element for the heel of the wearer whereby not only will the wearer's arch be supported, but shocks incident to walking will be absorbed by the cushioning element.

Another object of our invention is to provide a cushioning element which may be applied to any of the standard types of arch supporters without altering the construction of the arch supporter to any appreciable degree.

Our invention also contemplates the provision of the cushioning element which is simple, light, strong and durable, and efficient in operation.

Our invention embodies features of construction and further objects which will appear from the following detailed description and the claims, taken with an inspection of the accompanying drawings, in which—

Figure 1 is a bottom plan of an arch supporter showing our cushioning device applied thereto;

Fig. 2 is a side elevational view of the same;

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 1; and

Fig. 4 is a fragmental sectional view taken on the line 4—4 of Fig. 1.

In the drawing we have disclosed one adaptation of our invention, a well known form of arch supporter being shown, said supporter including a body portion S, an intermediate raised or arch-supporting portion *a* and a heel portion *h*.

The cushioning device preferably, though not necessarily, includes a bracket member 10 having the base portion thereof riveted or otherwise secured as at 12 to the intermediate or raised portion of the supporter S. The bracket 10 is offset as at 13 to provide a clamping flange portion 14 in spaced relation to the intermediate portion *a* of the supporter. The flange 14 is provided with a plurality of projections 15 directed toward the supporter body, for a purpose which will hereinafter appear. Of course, if desired but one projection may be employed without detracting from the efficiency of the device.

In the form of the invention as shown, the cushioning element embodies a curved spring tongue 16 preferably tapering in shape and provided with a plurality of openings 17 in its larger end adapted to register with the projections 15 formed in the flange 14 when said tongue is inserted between the flange and the supporter so as to detachably maintain the spring tongue in position. The free ends of the flange 14 are downwardly bent as at 18 to assist the projections 15 in preventing lateral movement of the tongue. The free end of the tongue is bent slightly upwardly as at 19 so as to prevent a smooth surface to engage the surface of the supporter. The tongue extends toward the rear of the supporter beneath the heel portion thereof so as to absorb shocks ordinarily imparted directly to the heel of the wearer.

As an equivalent of the spring strip we may substitute a flexible non-resilient strip therefor, and insert shock absorbing means of any kind beneath the non-resilient strip. The bracket now provided may be used to retain both forms of strips.

We do not desire to be limited to the exact details of construction of our invention but reserve the right to make such changes therein as do not depart from the spirit and scope of the invention as claimed.

We claim:

1. In a device of the kind described, an arch supporter, a bracket secured to the bottom face thereof a cushioning member, cooperating parts on the latter and the bracket for removably securing the cushioning member in place, said several parts being relatively yieldable to permit the easy attachment and detachment of said cushioning member.

2. In combination, an arch supporter having a raised portion, a bracket carried by the under-face of the supporter and provided with a flange arranged in spaced relation thereto, a plurality of projections in said flange, a curved spring tongue having a

plurality of openings in one end thereof to aline with the projections in said flange, and means on the free ends of the flange to prevent lateral movement of the spring tongue, said tongue being disposed beneath the heel portion to absorb shocks.

3. In combination, an arch supporter having a raised intermediate portion, a bracket carried by the under-face thereof and formed with a flange in spaced relation thereto, said flange having a plurality of projections therein, a tapering curved spring tongue arranged with its curved portion beneath the heel portion of the supporter and provided with a plurality of openings in one end thereof to aline with the projections in said flange, and the free ends of the flange being bent toward the body of the supporter to retain said tongue against lateral movement.

4. The combination of an arch supporter, a bracket on the bottom face thereof having a gripping flange, and cushioning means insertible beneath said flange to be retained detachably beneath the heel portion of said supporter.

5. The combination of an arch supporter, a bracket on the bottom face thereof provided with an offset shoulder and a gripping flange, a projection formed on the inner face of said flange, and cushioning means insertible between the flange and the arch supporter and provided with an opening to accommodate the projection, the inner end of said cushioning means abutting the shoulder.

6. In combination, an arch supporter, a bracket on the bottom face thereof provided with an offset shoulder and a gripping flange, a projection on the inner face of said flange, a cushioning member insertible beneath said flange and having an opening to accommodate the projection, and guide members on the sides of said flange.

In witness whereof, we hereunto subscribe our names this 31st day of March, A. D. 1917.

CLYDE L. SKINNER.
PURNEY A. TUCKER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."