

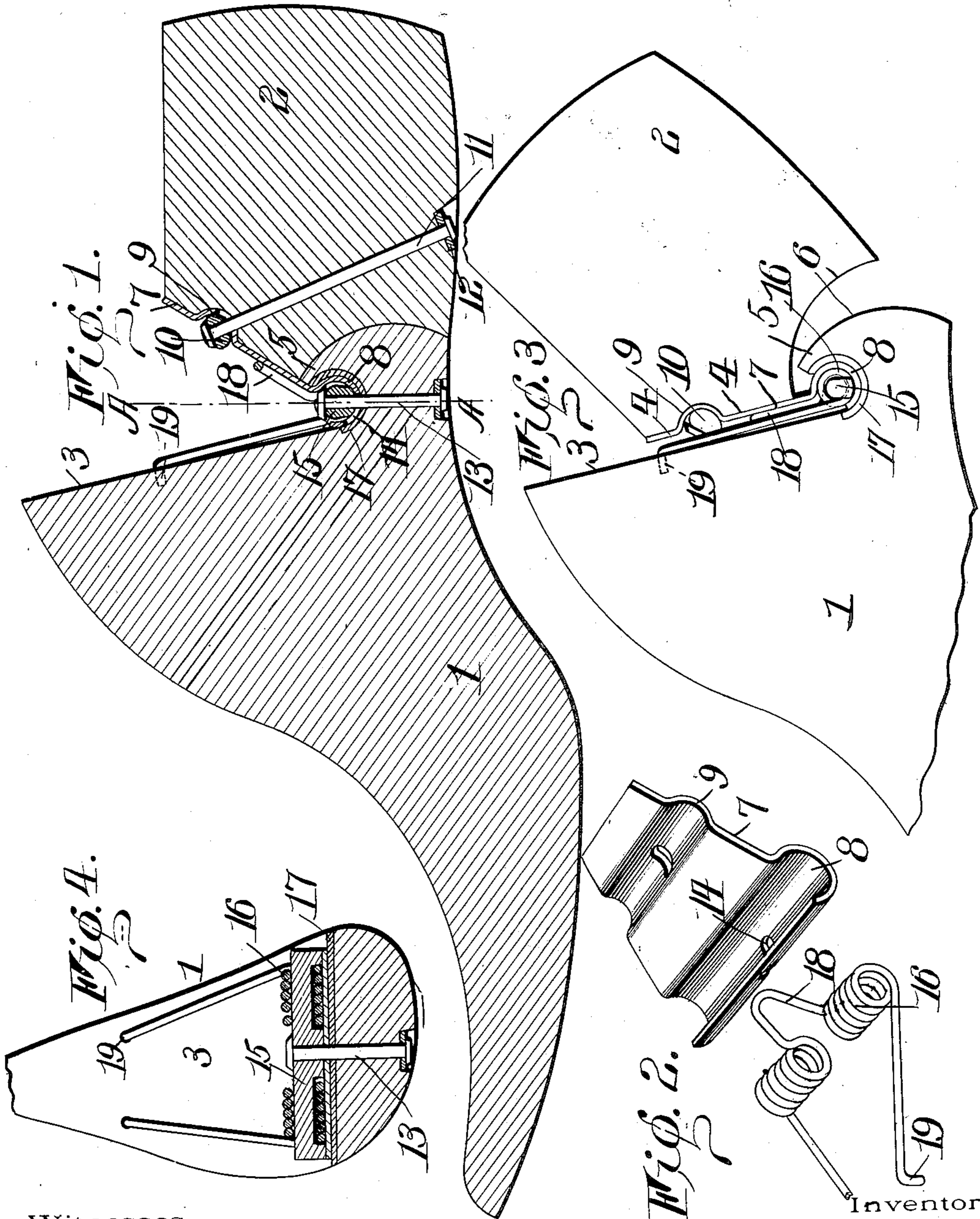
No. 845,012.

PATENTED FEB. 19, 1907.

J. C. SCHELTER.

SHOE LAST.

APPLICATION FILED MAY 29, 1902.



Witnesses.

Matter B. Payne.  
G. Willard Rich.

Fig. 2.

John C. Schelter  
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# UNITED STATES PATENT OFFICE.

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## SHOE-LAST.

No. 845,012.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed May 29, 1902. Serial No. 109,475.

*To all whom it may concern:*

Be it known that I, JOHN C. SCHELTER, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Shoe-Lasts; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention relates to lasts, and particularly to that class of lasts which embody the forward or toe section and the heel-section; and my invention relates particularly to the construction of a suitable hinge connection between these parts which will be strong, simple in construction, and easily applied in such a manner that as the parts are moved relatively to each other the length of the last will be shortened, permitting its easy removal from the shoe.

To these and other ends the invention consists in certain improvements in construction and combinations of parts, all as will be more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings, Figure 1 is a longitudinal sectional view of the last, illustrating the application of a hinge constructed in accordance with my invention. Fig. 2 is a detached perspective view of the hinge and cooperating parts. Fig. 3 is a side elevation of the last, illustrating the operation of the hinge; and Fig. 4 is a cross-sectional view on the line A A of Fig. 1.

Similar reference-numerals in the several figures indicate similar parts.

In illustrating the hinge I have shown it applied to a last consisting of the forward or toe section 1 and the rear or heel section 2. At its upper side these parts are formed with inclined faces 3 and 4, respectively, forming a V-shape notch, and at the bottom of the notch is a transversely-extending curved recess arranged with its center in line with or below the plane of the face 4, so that a hooked shoulder or projection 5 is formed at the rear end of the section 1. A last of this description is usually constructed in the first instance of a single piece of material, and the circular recess is formed therein by passing a cutting-tool transversely through the last. The V-shape notch is then formed by sawing

along the lines indicating the faces 3 and 4, and to separate the heel and toe sections the parts are severed upon a line 6, which is preferably curved and arranged so that its upper end intersects the face 4 at a point in rear of the recess, leaving the shoulder 5 upon the forward or toe section, as shown.

The hinge member or connecting-plate (illustrated in Fig. 2) consists of a base 7, preferably of sheet metal, having its lower end 8 curved, as shown, and extending below the lower side of the base, so that when the latter is applied to the heel-section 2 of the last the portion 8 may be inserted into the circular recess in the section 1 by a relative lateral movement of the parts, when it will be engaged by the shoulder 5 to prevent the separation of the parts either vertically or longitudinally. To securely attach the hinge member to the face 4, I provide the base thereof with a downwardly-extending rib or portion, preferably formed by indenting the base transversely near its upper edge, as indicated at 9. The rib lies in a corresponding depression or channel provided in the face 4, and in this indentation is located a bar or head 10 of a T-shaped rivet, the shank 11 of which extends downwardly through the heel-section 2 and is secured by upsetting its lower end beneath a washer 12. Other means of attaching the hinge member or plate may be employed; but the arrangement of the depressed portion or rib 9 is desirable, as by its engagement with the face 4 the parts are securely held by the single rivet and the twisting of the parts by rough handling is entirely prevented. The depression also permits the aperture through which the rivet extends to pass downwardly and across the grain of the wood, so that when the rivet is secured the heel-section is strengthened rather than weakened by the rivet therein. To prevent a lateral movement of the two sections of the last, I secure the portion 8 of the hinge by means of a rivet 13 in the toe-section 1 of the last, which passes through an elongated aperture 14, formed in the hinge member, and to form an even pressure on the hinge throughout its length I also pass the rivet through the bar or bridge piece 15, and in the lower side thereof are provided cut-out portions or recesses forming the central and end bearing points or feet, and between the latter are accommodated the convolutions of the coil-

spring 16. If desired, a wear-plate 17 may be employed, curved to conform to part of the portion 8 and adapted to lie beneath it. To secure the wear-plate 17, I preferably provide it with an aperture, and the rivet 13, passing therethrough, securely positions it in the circular recess.

In order to support the sections of the last in the normal extended position, as shown in Fig. 1, I employ a spring 16, which is formed with the two coils arranged upon opposite sides of a central rearwardly-extending loop 18, said coils being secured beneath the bridge-piece 15 with the loop 18 engaging the base 7 of the hinge, while the ends of the spring are extended upwardly and forwardly to engage the face 3 and are preferably provided with outwardly-projecting tips 19, which are engaged in suitable apertures. Various forms of springs may be used between the parts to hold the last normally in extended position; but the spring which I have shown and described is preferable, as the outer ends are separated a sufficient distance to permit the loop to pass between the ends when the parts of the last are turned, as shown in Fig. 3, and by inclosing the coils beneath the bridge-piece 15 it is impossible for the spring to become displaced. Further, the bridge-piece extending over the coils and not engaging therewith permits their free operation through all of the convolutions whenever the hinge is operated.

The hinge which I have shown and described consists of but a single piece, which may be easily formed from sheet material, and while its construction may be changed without departing from the spirit of my invention the form I have shown is preferable, as the last with which it is employed is easily formed and the hinge rigidly secured to one of the parts by a single fastening device, and its journal connection with the other portion being near one edge of the last permits the length of the latter to be decreased when the parts are moved toward each other, thus allowing it to be readily applied to and removed from a shoe. Moreover, the shoulder 5 engaging in rear of the portion 8 on the hinge member prevents the portions of the last from being separated by other than a relative lateral movement, which is prevented by the securing device or rivet 13.

I claim as my invention—

1. In a last, the combination with a heel and a toe section, one of said sections having a recess open at the top and provided with a curved bottom, of a plate on the other section having a curved end bearing against the curved bottom of the recess in the first section to form a hinge connection therewith and means for preventing the lateral movement of one section relatively to the other, said sections being divided along a line terminating outside of said recess.

2. In a last, the combination with one section having an open recess having its sides curved and a second section provided with a face leading from said recess, the line of separation between said sections being wholly outside of said recess, of a hinge comprising a base secured over said face on the second section and provided with an end journaled against the curved sides of the recess on the first section and means for preventing a lateral movement of one section relatively to the other.

3. In a two-part last, the combination with one section having a recess provided with a curved bottom and open at one side and a shoulder at the side of the recess extending beyond the center thereof, of a plate on the other section of the last extending over said shoulder having a curved portion engaging the sides of the recess and forming a hinge connection between the parts of the last and means extending through the hinge member for preventing its longitudinal movement in the recess.

4. In a last, the combination with the toe-section provided with a transversely-extending recess open at its upper side and having a shoulder at its rear side extending inwardly above the center of the recess, a plate attached to the heel-section having a curved end arranged at one side of the plate adapted to be engaged in the recess to form a hinge connection between the parts of the last, said curved portion being provided with an aperture, and a securing device passing through the aperture.

5. In a two-part last, the combination with one section provided with an open recess, a wear-plate located therein and the other section having the face provided with a channel, of a plate having a rib adapted to lie in the channel and a securing member rigidly holding the plate on said face, a curved end on the plate adapted to lie in the recess and form a hinge connection between the sections of the last and having an aperture, and a fastening device passing through said aperture.

6. In a two-part last, the combination with one section having a recess, a curved wear-plate therein provided with an aperture and the other section having a face provided with a channel, of a hinge member embodying a base-plate having a rib on one side adapted to engage said channel, means for securing the plate on said face, an end on the plate adapted to engage the wear-plate provided with an elongated aperture, and a single fastening device passing loosely through the aperture in the end of the plate and through the aperture in the wear-plate to secure the latter in its recess.

7. In a two-part last, the combination with a hinge member secured to one section and journaled on the other having an open

side and a bar located in said open side, of a spring having the coils surrounding the bar and the ends engaging the separate portions of the last, and means for securing the bar to prevent the removal of the hinge member.

8. In a two-part last, the combination with a hinge member secured to one section and having a curved end open at one side and provided with an aperture, of a bridge-piece lying in said curved portion having feet engaging the bottom thereof and provided with an aperture registering with the aperture therein, a spring having the coils surrounding the bar and the ends engaging the separate portions of the last, and a fastening device passing through the bar and hinge member.

9. In a last, the combination with a toe-section 1 provided with an open recess and having a shoulder 5 at its outer side, and a heel-section 2 having the face 4 provided with a channel, of a plate 7 having a rib lying in the channel and provided with a depression in its face, a fastening device 11 having

the head lying in said depression and securing the plate to the heel-section, a curved end 8 on the plate having an aperture and adapted to lie in the recess in the toe-section and a fastening device 13 having a head lying in said curved portion and extending through the aperture to secure the curved portion of the toe-section.

10. The combination, in a transversely-divided last, of a fore part; a heel part and a bow-spring one arm of which is secured to one of said parts and the other arm of which is secured to the other of said parts; said last being provided with a top recess and a chamber, at the bottom of said recess, within which chamber the head portion of the spring extends; the spring acting to keep the fore part and heel part normally in alignment.

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Witnesses:

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