

L. SONNTAG.

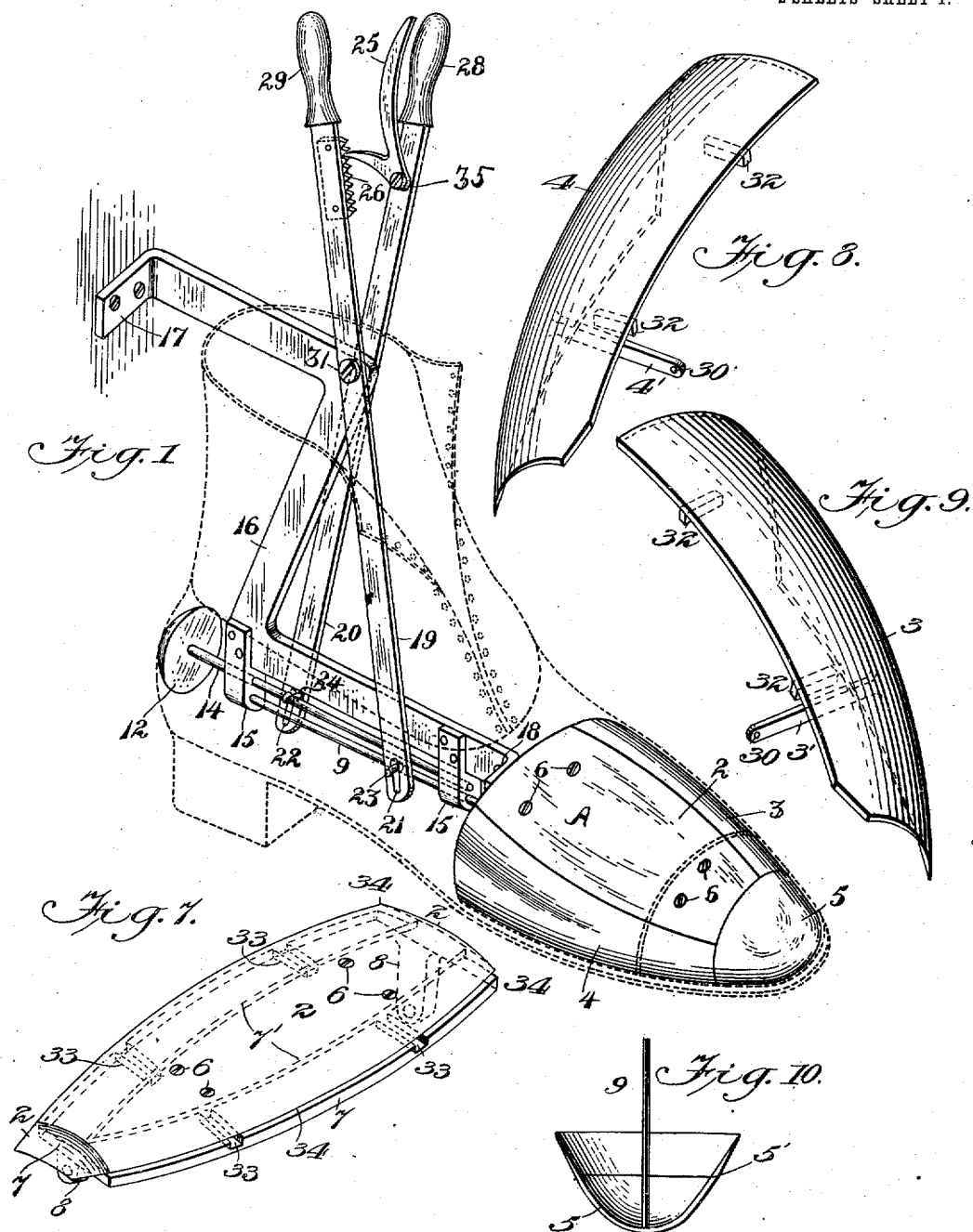
SHOE HOLDER.

APPLICATION FILED JULY 16, 1908.

954,828.

Patented Apr. 12, 1910.

2 SHEETS—SHEET 1.



WITNESSES:

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2 SHEETS—SHEET 2.

Fig. 2.

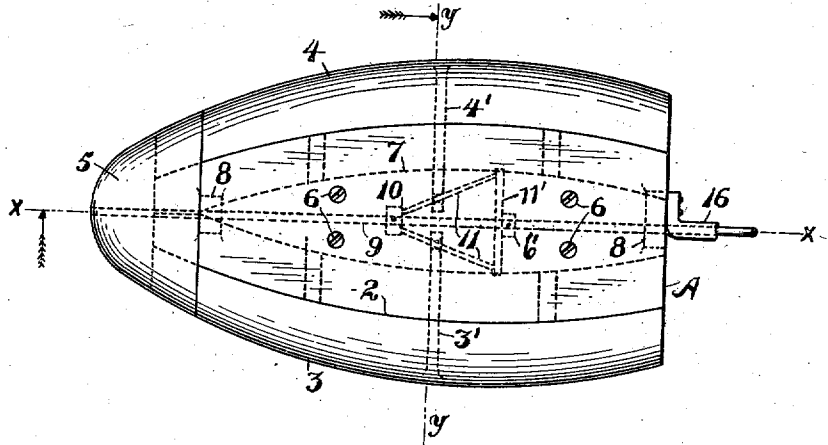


Fig. 3.

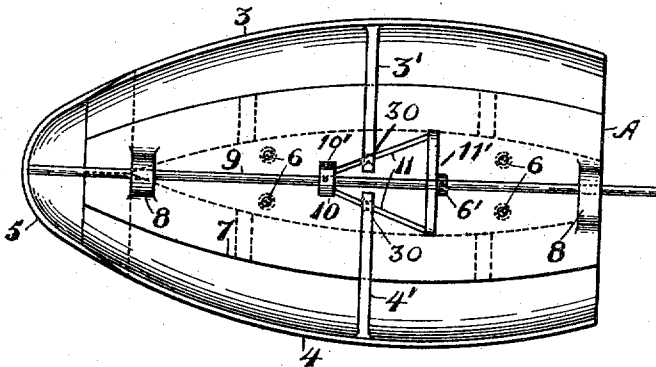


Fig. 4.

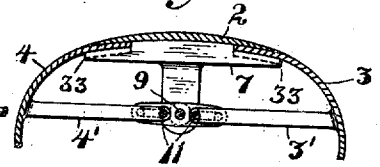
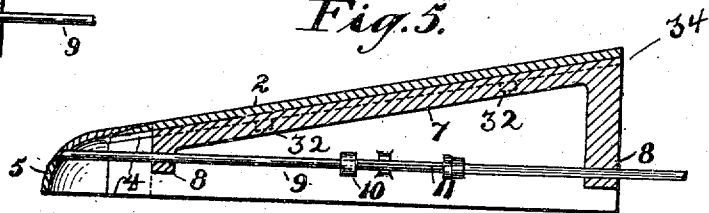


Fig. 6.



Fig. 5.



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UNITED STATES PATENT OFFICE.

LINCOLN SONNTAG, OF SAN FRANCISCO, CALIFORNIA.

SHOE-HOLDER.

954,828.

Specification of Letters Patent.

Patented Apr. 12, 1910.

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To all whom it may concern:

Be it known that I, LINCOLN SONNTAG, a citizen of the United States, residing at the city and in the county of San Francisco and State of California, have invented certain new and useful Improvements in Shoe-Holders, of which the following is a specification.

My invention relates to devices for holding shoes for cleaning and polishing, the shoe being supported from its interior without the substitution of any part.

The object of my invention is to provide a device for holding shoes which enlarges itself in the interior of the shoe upon the application of power so as to fill out uniformly the flexible part of the front or toe portion of the shoe as well as sustain the heel portion of the same, thereby firmly holding any shoe for cleaning or polishing without the substitution of a different part, the front section of the device having substantially the form of the top, side portions and end of the front part of a last and being designed to preserve such shape notwithstanding its enlargement by operation of said device.

To said ends my invention consists in the novel parts, and arrangement and combination of parts which I do hereinafter describe by reference to the accompanying drawings illustrating said device, and which invention I do particularly point out in the appended claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of my device holding a shoe, the shoe being shown in dotted lines. Fig. 2 is a plan view of the front adjustable portion of the device, certain parts thereof hereinafter designated by characters being shown in dotted lines. Fig. 3 is a bottom view of said portion of the device. Fig. 4 is a section of said portion of the device taken on line $y-y$ of Fig. 2. Fig. 5 is a longitudinal section of the same taken on line $X-X$ of said Fig. 2. Fig. 6 is a longitudinal section of the toe-cap hereinafter mentioned. Fig. 7 is a plan view of the top plate hereinafter mentioned, said view showing parts positioned under the same, partly in dotted lines, and designated by characters. Fig. 8 is a view of wing 4 and Fig. 9 of wing 3 hereinafter described. Fig. 10 is a bottom view of said toe-cap. In the perspective views of said wings shown in Figs. 8 and 9 the arms and guides herein-

after mentioned as interiorly secured to said wings are shown in dotted lines.

Referring to the said figures, A shows the part of the device constituting an expandible form for holding the front portion of the shoe.

2 is the top plate of the said form sloping longitudinally from the rear of said form to the front where the same is engaged by the toe-cap 5 as shown in Fig. 5. The said top plate slopes transversely from its center line to a sharp edge on either side, being substantially crescent-shaped in cross-section as shown in Fig. 4, and is preferably not integral with frame 7 to which it is secured by screws 6. The lower side of said plate 2 is curved and extends on either side over that part of the frame 7 which is cut away so as to form a channel 34 between said plate and said frame. In each channel 34 one of the wings 3 or 4 is contained and slidable, the said wings being curved and forming the sides of the form A. The said wings 3 and 4 are extensible laterally by the forward movement of the shaft or rod 9 and are retracted by the backward movement of the said rod. By the gradual extension of said wings the width of said form A is augmented so as firmly to hold shoes of increasing widths without the substitution of any part, and the said wings in their outward movement sliding along the lower surface of top plate 2 are forced by the downward curvature thereof downwardly as well as laterally so that they bind not only the sides of the shoe, but contact with the sole thereof, thereby preventing tilting of the shoe while on the form A.

To make provision for the increase in length of shoes, I provide the toe-cap 5 which is attached to the end of rod 9 as shown and moves with the forward movement of said rod so as to bind the point of the shoe interiorly. The said toe-cap has a certain feature adapting it for engagement with said wings and top-plate hereinafter mentioned. To cause the expansion of wings 3 and 4 I provide a frame which has substantially acute-angled ribs 11 secured in and inclining inwardly from cross piece 11' to collar 10 to which they are also secured. The collar 10 is preferably secured to rod 9 by a screw as shown in Fig. 3. The cross piece 11' has a hub 6' which has a central aperture extending therethrough as well as through said cross piece, the same being preferably

fastened to rod 9 by a screw as shown in said Fig. 3. The wings 3 and 4 have guides 32 which move in channels 33 in frame 7. The path in which the wings 3 and 4 and the guides 32 move is shown by the inclined dotted lines on the lower side and the bottom of plate 2 on the upper side as shown in the upper portion of Fig. 5, and particularly in Fig. 7, wherein the top plate 2 appears as secured to the supporting member 7, the wings being omitted, and wherein the interior dotted lines 7' show the end walls of said member shown in Fig. 4 as engaged by said wings. The channels 33 and 34 are of sufficient dimensions to permit the sliding movement of said wings and guides therein. The wings 3 and 4 have arms 3' and 4' which arms have preferably diagonal apertures 30, the said apertures extending therethrough as shown in Figs. 2 and 3, and wherein rods 11 operate so that the forward movement of rod 9 will expand said wings, while the rearward movement of said rod 9 will retract the wings. The rod 9 is preferably supported in bearings 8 of the frame 7 in which bearings the said rod is slidable. The rear bearing 8 is preferably bolted to the bent portion 18 of a bracket 16, the said bracket also having a bent portion 17 by which it is preferably secured to a wall or other stationary object by screws. Hangers 15 are secured to and suspended from bracket 16, the said hangers having passages through which rods 9 and 14 are slidable as shown by dotted lines in Fig. 1. Heel piece 12 in Fig. 1 is preferably curved exteriorly, and is sustained by rod 14 to which it is secured.

Fig. 5 shows rod 9 supported in perforations of bearings 8. Rod 9 is operated by lever 19 and rod 14 is operated by lever 20. Lever 19 has slot 21 through which preferably passes shoulder screw 23 securing the lever to said rod 9. Lever 20 has slot 22 through which passes also preferably shoulder screw 24, by which said lever is secured to rod 14. The levers 19 and 20 are pivoted to the upper portion of the bracket 16 by shoulder screw 31. The lever 19 has rack 26 and lever 20 has the pawl 25, which is secured to the same by a shoulder screw as shown. Lever 19 has a handle 29 and lever 20 has a handle 28, and said pawl has a handle which is positioned opposite handle 28 as shown. The said pawl is preferably secured to lever 20 by shoulder screw 35, the weight of said pawl and its handle as secured to lever 20 being such as to cause said pawl to engage the teeth of rack 26 when said handle is released. The channels 33 for guides 32 are indicated by dotted lines in the upper part of Fig. 4 and as particularly shown in Fig. 7. Notwithstanding that toe-cap 5 in the forward movement of rod 9 is to some extent forced out of contact with said

top plate and wings, the material of the shoe being stiffened by such movement, depression of such material in the intervening space does not take place, and the line of curvature as described by top plate 2, wings 3 and 4 and toe-cap 5 as shown in Fig. 2 is substantially maintained owing to the spreading of such wings during the forward movement of the cap. The wings 3 and 4 as well as the top plate 2 have their front ends sharply inclined as shown in Figs. 3 and 5 so as to be evenly engageable with the interior of the rear end of the toe-cap 5 which has extending rearwardly therein a sharp inclination, the same being coincident with said inclination of the wings and plate to adapt it to such engagement. The inclination of said toe-cap 5 extends around the inner surface thereof as shown in Fig. 10, being from the line 5' shown in said figure running intermediately across the same to the rear end of said cap. The guides 32 prevent the longitudinal movement of said wings. The angularity of the ribs may be modified so as to produce a greater or less spreading of the wings 3 and 4, an increase in the angle of said ribs 11 producing an increase in the extension thereof, and a decrease in such angle producing a decrease in such extension. To provide for an increase in such extension of the wings 3 and 4 the channels wherein said wings slide should be deepened, a corresponding increase being made in the length of said wings as contained in said channels.

The parts of the device are preferably constructed of metal. By the use of shoulder screws as indicated I permit the movement of the several parts supported by such screws.

For cleaning or polishing the device may be operated in the following manner: The shoe being drawn over the form A, the same is supported by hand in a horizontal position and the handle 29 grasped with the other hand, thereupon the lever 19 is pushed until the form A is enlarged so as to support the shoe in substantially the same position without other support. The said lever being still held, the handle 28 is grasped until the shoe is firmly supported on the device by reason of the pressure of plate 12 upon the counter of the shoe, whereupon the pawl may be permitted to fall and rest between the appropriate teeth of ratchet 26 to keep the levers in the necessary fixed position, and the device may be then used for such cleaning or polishing.

To release the shoe the handle of pawl 25 is pressed so as to raise the pawl and the lever 20 is pushed while the lever 19 is pulled, whereby the size of the device is reduced to the extent necessary to permit the release of the shoe.

Although for maintaining the levers in a fixed position I prefer the pawl and ratchet, the levers may be secured in or held in such position by other suitable means.

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

1. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a pair of transversely movable curved side members, a top member having tapered longitudinal side edges overlying the mutually-adjacent side edges of the side members, and having a tapered forward end, and a forwardly extensible toe-cap interiorly in engagement with the tapered forward end of said side members.

2. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a pair of curved wings for widening said form, a fixed forwardly and downwardly inclined top-plate curvingly engaged by said wings and means located between said wings and in connection therewith for the simultaneous movement thereof in opposite directions.

3. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a pair of laterally supported curved wings for widening said form, a fixed forwardly and downwardly inclined top plate curvingly engaged by said wings, a toe-cap for lengthening said form interiorly engaged by said wings and plate, means located between said wings and in connection therewith for the simultaneous movement thereof in opposite directions, and separate means for moving said toe-cap.

4. In a shoe-holder having an expansible form shaped to fit the forepart of the shoe, a device for expanding and retracting said form laterally consisting of a movable shaft centrally and longitudinally extending through said form, and having a pair of rods oppositely supported on the sides of said shaft and inwardly inclining toward the forepart thereof.

5. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a pair of laterally movable curved wings, a top plate positioned above said wings and curvingly engaged by the same, means located between said wings and in connection therewith for expanding and retracting the same, an extensible toe-cap inclosing the front ends of said plate and wings, and separate means for extending and retracting the toe-cap.

6. In a shoe-holder, an expansible form shaped to fit the fore part of a shoe and comprising a pair of curved guidable wings, a top plate positioned above said wings and curvingly engaged by the same, a supporting and guiding member for said wings, means located between said wings and in

connection therewith for expanding and retracting the same, and an extensible toe-cap inclosing the front ends of said plate and wings, and independent means for extending and retracting said toe-cap.

7. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a pair of laterally movable curved wings having front inclining edges, a downwardly inclining top plate having a front slanting edge, and said plate being exteriorly curved transversely, and the bases of its sides curving to sharp edges and being engaged by said wings, a supporting member for said plate and wings, means located between said wings and in connection therewith for expanding and retracting the same, an extensible toe-cap rearwardly interiorly inclined to a sharp edge, said edge engaging the front ends of said plate and wings, and independent means for extending and retracting said toe-cap.

8. In a shoe-holder, an expansible form shaped to fit the fore part of a shoe and comprising a top plate transversely crescent-shaped, a supporting member for said top plate having side recesses separating said top plate from said member, and curved wings having guides seated in said member movably supported in said recesses, and said wings having inwardly projecting arms containing end apertures, a longitudinal shaft slidably supported in said form and extending therethrough, and being provided with a pair of rods oppositely supported on the sides of said shaft and inwardly inclining toward the forepart thereof, said rods slidably extending through said end apertures, an extensible heel plate for sustaining said shoe rearwardly, and means for supporting said form.

9. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a top plate transversely crescent-shaped, a supporting member for said top plate having side recesses separating said top plate from said member, transversely movable curved wings supported in said recesses, said wings having inwardly projecting arms containing end apertures and an extensible toe-cap penetrated by said plate and wings, a longitudinal shaft slidably supported in said form and extending therethrough, and being provided with a pair of rods oppositely supported on the sides of said shaft and inwardly inclining toward the forepart thereof, said rods slidably extending through said end apertures, an extensible heel plate for sustaining said shoe rearwardly, and supporting means for said form.

10. In a shoe-holder, an expansible form shaped to fit the forepart of a shoe and comprising a top plate having a laterally convex upper face and its lower face curv-

ing downwardly at the sides, a supporting member positioned below said plate and centrally secured to the same, laterally movable wings mounted between said plate and said member provided with arms having end apertures, and a longitudinally movable toe-cap penetrated by said plate and wings; and a slidable longitudinal shaft in said form and extending therethrough provided with a pair of rods oppositely supported on the sides of said shaft and inwardly inclining toward the forepart thereof, said rods slidably extending through said end apertures.

11. In a shoe-holder, an expansible form shaped to fit the fore part of a shoe and comprising a longitudinally inclined top portion, said top portion being exteriorly curved transversely and having sides terminating in sharp edges, a bottom portion having end bearings centrally supporting said top portion, and having recessed sides extending beneath said top portion, curved wings having guides and arms slidably mounted between said top portion and bottom portion, and a longitudinally movable toe-cap penetrated by said plate and wings.

12. In a shoe-holder, an expansible form shaped to fit the fore portion of a shoe, and comprising a downwardly inclined top portion having a front slanting edge, and being exteriorly curved transversely and the bases of its sides curving to sharp edges, a bottom portion centrally supporting said top portion and having sides containing recesses out of contact with said top portion, laterally movable curved wings mounted in said recesses and provided inwardly with arms adapted for engagement, a fixed toe-cap movable longitudinally from said top portion and rearwardly interiorly inclined to a sharp edge and being penetrated by the front ends of said top plate and wings, and a slidable longitudinal shaft extending through said form, and provided with laterally supported inclined rods engaging said arms for the movement of said wings.

13. In a shoe-holder the combination of a

forwardly inclined and transversely curved top plate converging to a sharp edge on each side thereof, a member centrally sustaining said top plate, and a pair of side members slidably mounted below said plate and engaging said suspension member for lateral movement, each of said side members engaging said plate at one of its side edges.

14. In a shoe-holder the combination of a fixed forwardly inclined and transversely curved top plate converging to a sharp edge on each side thereof, a pair of laterally movable curved wings, each of said wings slidably engaging the base of said plate to one of its side edges, and supporting means engaged by both plate and wings.

15. In a shoe-holder the combination of a forwardly inclined and transversely curved top plate converging to a sharp edge on each side thereof, a pair of laterally and oppositely movable curved wings for widening said form engaging the lower surface of said plate, means arranged beneath said plate and wings for sustaining the same and engaged by both the plate and wings and a movable top-cap interiorly and endwise engaged by said plate and wings.

16. In a shoe-holder the combination of a forwardly inclined and transversely curved top plate converging to a sharp edge on each side thereof, a pair of laterally and oppositely movable curved wings for widening said form engaging the lower surface of said plate, means arranged beneath said plate and wings for sustaining the same, said means engaged by both the plate and wings, a movable toe-cap having an inclined inner end interiorly and endwise engaged by said plate and wings, and means located between said wings and in connection with said wings and toe-cap for the movement thereof.

In testimony whereof I affix my signature, in presence of two witnesses.

LINCOLN SONNTAG.

Witnesses:

F. E. FARMER,

CHAS. T. STANLEY.